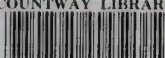
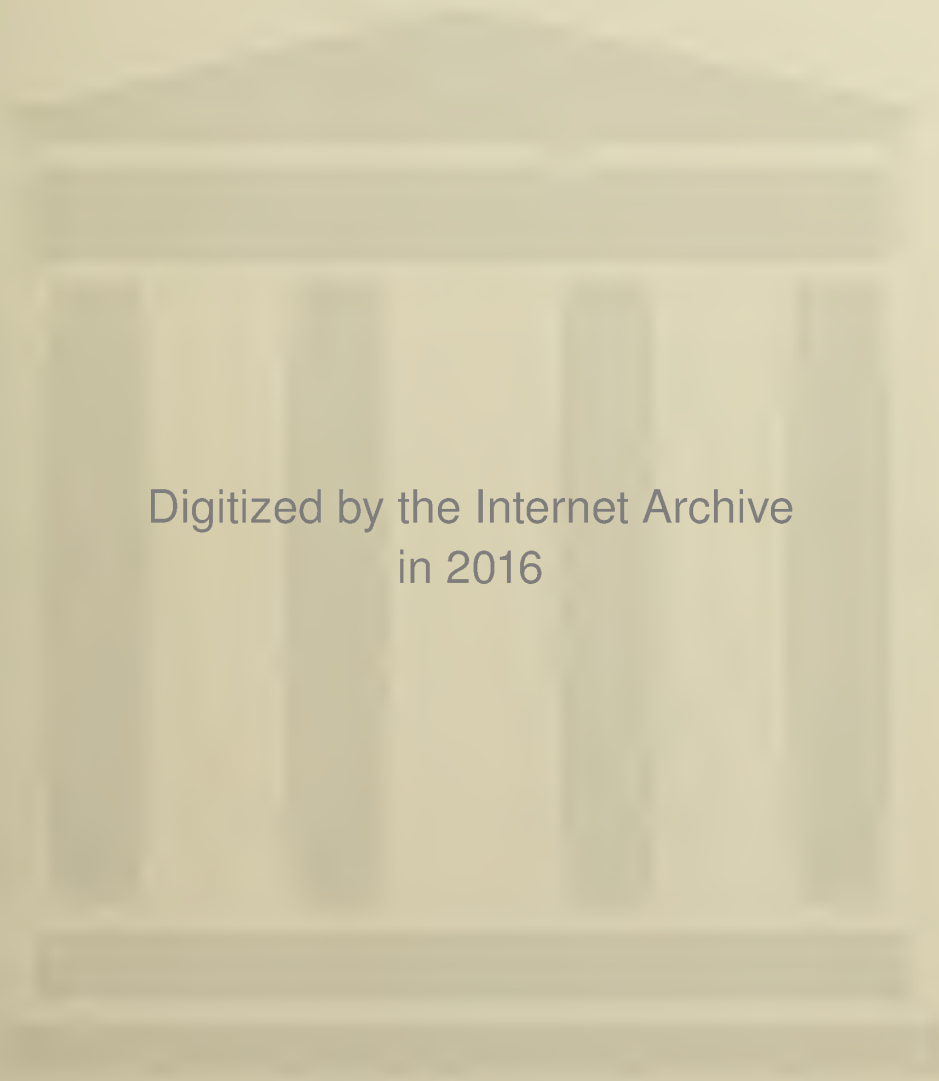


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BOSTON MEDICAL
JAN 21 1915

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Vol. XV

TOPEKA, KANSAS, JANUARY, 1915

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CONTENTS

ORIGINAL ARTICLES—

The Care of the Babies' Eyes	1
Are Simple Cataract Caused by Chronic Pyogenic Infection?	8
The Mutilation of the Tonsil	10

EDITORIAL—

The Report of the Commission	13
Editorial Notes	15, 16
Would Create Sanitary Districts	16
Our State Bacteriologist	17

THE CORRAL	19
------------------	----

SOCIETY NOTES	21
---------------------	----

THE FORUM	23
-----------------	----

MISCELLANEOUS—

Common Errors in Gall-Tract Surgery ..	12
Poisonous Fly Destroyers	26
The Adrenals ..	27
The Proper Dosage of Diphtheria Antitoxin	27
Hyperthyroidism	28
Thrombosis and Embolism	29
Lactic Acid Bacilli Gargles	30
Studies Concerning Diabetes	30
How Deep Should the Tube in Intra-Tracheal Insufflation Be?	31
Bacteriology of Infections	32
Urea Distribution in Uremia	33
The Salicylates in Rheumatism	33
Some Breast-Milk Problems	34
The Distribution of Urea in the Body	34

THERAPEUTIC NOTES.....	35
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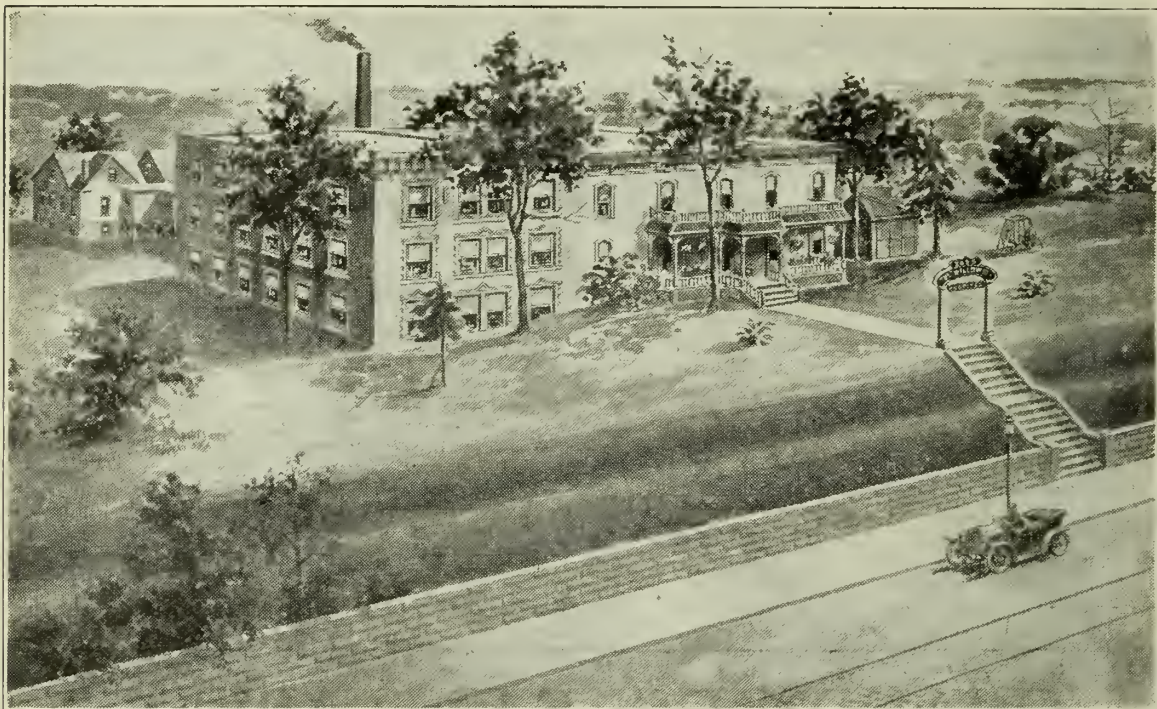
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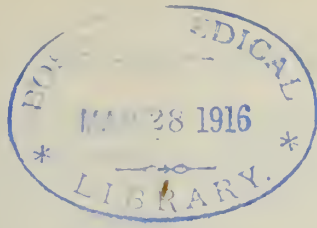
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THE JOURNAL

of the

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Vol. XV

TOPEKA, KANSAS, JANUARY, 1915

No. 1

ORIGINAL ARTICLES.

The Care of the Babies' Eyes.

By JOHN H. JOHNSON, M.D., Coffeyville, Kan.

Read before the Kansas Medical Society at Wichita, May, 1914.

The subject that I have chosen for this paper is one which I believe you will all agree to be one of much interest and importance, not only to the general practitioner and ophthalmologist, but to every citizen of our great commonwealth. The opportunity to assist in a great cause is open to us in Kansas and my object in addressing you on the "Care of the Babies' Eyes" at this time is to urge more activity on your part in the prevention of blindness. That greater care is necessary is shown by the United States census in 1910 there being 59,596 blind persons in our country. It is gratifying to note that there was a decrease of 5,167 blind in ten years notwithstanding the increased population (1900 census 63,763 blind in U. C.) A very large per cent of these are blind as a result of preventable diseases in infancy.

The study of destructive diseases of the eye, then, or even those impairing its usefulness, will be found to have an economic and social bearing as well as a scientific interest.

In the discussion of the care of the baby's eyes no small part of it should be devoted to the discussion of the prevention of blindness. In order to prevent blindness it sometimes becomes the physicians' painful duty to advise against large families. This is especially so when the first two children of a parent are blind or become blind, as there is great danger that

subsequent children will be blind or become blind even in spite of good care of their eyes.

There are two types of hereditary blindness, similar and dissimilar heredity. In the first the child inherits the same disease as the parent and in the latter a different but related disease. That blindness is and can be inherited is well illustrated in nature by the blind fish found in certain caves of Indiana and Kentucky. All physicians, especially those who treat the eye, have seen examples of undoubted hereditary blindness. In the New York School for the Blind in 1910 there was a child who represents the fourth generation of blind individuals. While no more than one-tenth of all blind persons are capable of transmitting their affection to their children, yet it is a sufficiently high per cent to be of some consequence in the care of the babies' eyes. According to Loeb of St. Louis who has given this subject an extensive research, there are twelve forms of blindness distinctly characterized by the property of hereditary transmission; viz., albinism, aniridia and colobomairidis, anophthalmus and microphthalmis, atrophy nervi optici, cataract, ectopia lentis, family degeneration of the cornea, glaucoma, megalophthalmus, nystagmus, ophthalmoplegia externa and strabismus, and retinitis pigmentosa. In addition to these may be mentioned color-blindness and refractive errors.

It is not so practical to carry on a systematic examination of the babies' eyes by especially appointed medical men as in the case with school children in many of the

larger cities, for this reason it makes it especially necessary that the mothers and nurses be taught how to care for the babies' eyes.

The nurse and mother should be taught that it is highly necessary for them to always thoroughly wash their own hands and clean their finger nails before washing the baby's eyes. That they should never rub their babies' eyes with their hands, or an unclean towel, handkerchief or cloth. That nothing should be put into the baby's eyes to strengthen them "when the eyes seem weak" unless it be put in under or by the direction of the physician. Too much care of the baby's eyes should not be exercised by putting harmful home remedies in them, frequently this does more damage than good.

The parent and nurse should be instructed how to take good care of the baby's sight for upon it depends much of the baby's safety and success in life. No glaring light should be allowed to strike the baby's eyes, for the infant's eyes should never be exposed, even in sleep, to the glare of a strong light. Electric bulbs used in lighting a room should be made of frosted glass and the cluster of such bulbs should be provided with pale amber shades to screen the baby's eyes from the direct rays of light. When a child is taken out of doors in the baby carriage, the eyes should be protected from the glare of the sun by a suitable awning or parasol lined with material that will not reflect the sun rays upon the baby's face.

The same rule holds good in babies as in older children, that is as soon as the eyes show any sign of squinting the child should be taken to a competent oculist in order that proper exercise of the muscles of the eyes might be undertaken to develop those tiny muscles and save the sight in the poor eye.

It is very seldom that parents and family physicians notice symptoms of errors of refraction in babies. The symptoms, no doubt, occur more frequent than is observed. A child who was a mere baby of three years old was brought to us for examination by parents who were especial-

ly intelligent and observing. They had observed that the child did not see as good as a child should of its age and that the eyes had a tendency to cross. September 21, 1912, we put on glasses with lenses plus three dioptrics each to correct the error at that time. December 4, 1913, we changed the lenses to plus 2 dioptrics each. Without glasses this young child does not see but 20-200 and the eyes are crossed while with glasses the vision is 20-20 or normal, and the eyes are not crossed. This case history is introduced at this time to illustrate the early taking care of the baby's eyes in order to conserve the vision by giving the child a clear image on his retina and at the same time preventing the developing of a case of strabismus with the possible loss of vision in one eye. Everything should be done to favor the development of every baby's eyes and if they are weak in any particular they should be given special attention. The eye is a very important organ in that by far the greatest knowledge reaches the brain through the eyes and over the optic nerves.

The care of the baby's eyes begins really before the child is born, even before it is conceived, by the care of the future father and mother. Every unborn child has a right to expect moral cleanliness on the part of his father, or if he has not that, let common decency demand that he inform the mother's accoucheur of the possible danger to which the eye of the child will be exposed. Theoretically an antiseptic vaginal douche is indicated before delivery but practically it has been found to be inadequate to the prevention of ophthalmia neonatorum (Holt). The obstetrician (or midwife) besides considering the hazard of more than one life at the same time when he or she engages to safely confine a woman but he should also consider the hazards to the sight of the child. In case of instrumental delivery, the possible traumatism to one or both eyes. For practical purposes the optic hazard of obstetric practice really resolves itself into a consideration of ophthalmia neonatorum. Cleanliness on the part of the physician is of paramount importance.

The public will excuse a parent when disease has developed in the baby's eyes as the result of ignorance, carelessness, and uncleanness, but will always severely censure the physician when the baby has sore eyes as the result of his ignorance, carelessness or uncleanness.

It is easier to put out the bonfire at the road-side than to put out the prairie fire when once it gets started. Remembering always that the conjunctiva of the new born are especially susceptible to infection for the following reasons; absence of lachrymal secretion, there are no pavement cells in the conjunctiva as in adults, and there is an absence of leukocytes from the lymphoid tissue. A well proven method to get rid of any germs that may have gotten in the eyes of the new born while it was being born is the Crede method.

Babies, even young babies, lose the sight of one or both eyes from injury with a fork, a pair of scissors, or knife or some other sharp instrument. This at once suggests to the family physician that he should caution the parents and nurse that they should be constantly on guard to see that the babies and young children especially, should not be allowed to handle such things. "Eternal vigilance is the price of" eye sight as well as that of liberty. There is another class of accidents which are entirely unnecessary and are the result of absolute selfishness and lack of consideration on the part of those who use and permit the use of the dangerous toys, the wounds of the eye inflicted with the bean shooter, the air-gun and the cat-rifle. When a boy shoots out his own eye it is bad enough, but when he shoots out the eye of someone's helpless baby brother or sister, words fail me to express my sorrow and indignation.

Blindness is sometimes caused by hereditary syphilis, manifesting itself in interstitial keratitis, and accompanying iritis; sometimes it causes atrophy of the optic nerve. If either of the parents is known to have had syphilis, the mother should be treated carefully with mercury while carrying the child, and after the child is born a skillful oculist should be con-

sulted at once on the appearance of any inflammatory symptoms about the eyes, as they may indicate a beginning keratitis or iritis; if there is any seeming loss of vision it should be investigated at once as it may indicate a commencing atrophy of the optic nerve.

Physicians should give every baby the benefit of a doubt and use the Crede method, make it a routine practice, and no parent can become offended, but if you use it only in suspicious cases the parent can justly become offended. Those guilty of wrong doing are the first to become offended if you use a prophylactic treatment on their baby's eyes and don't on others. If the parents are frankly informed that you use the preventive in every case, even when gonorrhea is not suspected, much can be done to remove any popular prejudice that ophthalmia neonatorum is necessarily of gonorrheal origin. That at least 10 per cent of all blindness is due to ophthalmia neonatorum and that 25 per cent of all preventable blindness is attributed to this disease. There is no use arguing as to the efficiency of the Crede method of prophylaxis.

Everyone admits its value. No physician can consistently object to its use. The time to cure blindness is before it begins, a seemingly paradoxical statement, and one implying that the condition when thoroughly established is incurable. The prevention of blindness, therefore, is a subject toward which the attention of the modern ophthalmological world is rapidly turning, and one which the progressive general practitioner of medicine can no longer ignore. We should appreciate that our duty lies quite as much in the prevention of ocular disease as in its treatment. It seems hardly necessary in this day and generation to point out that it is quite as important to conserve the eyesight as to restore it. Of the 60,000 blind persons in the United States 6,000 or 7,000 are needlessly blind because the Crede method had not been used in the babies' eyes.

An indication that the babies' eyes are receiving better attention than formerly is that ophthalmic surgeons see less cases

than formerly and the number of blind people are decreasing while the population is increasing.

Sydney Stephenson of London says, "Every ophthalmic surgeon will admit that cases of ophthalmia neonatorum are becoming scarcer and scarcer. Speaking for myself, I used to see five cases ten years ago (i e 1897) in London where I hardly see one nowadays, although the amount of clinical material at my disposal has increased."

There are other conditions which result from an improper or lack of care of the babies' eyes which the specialists have to deal, as trachoma (granulated lids), traumatic cataract (rare in babies) but those outlined above are most common and occur so frequently that they must be given serious attention.

If I were addressing a body of laymen I would attempt to quote Hellen Keller when she says, "Let us put away false modesty and silly prejudices and try to understand the enemy we are fighting," but as I am addressing educated medical men I need not emphasize this only as a reminder. Lest we forget, that we, as the physicians of Kansas should increase our vigilance in carrying on prophylactic measures. At the cost of two and a half cents per child or less, the eyes of many children can be saved. Although thirty-three years have gone since Crede first published the results of his prophylaxis, this inexpensive, but effective prophylactic treatment is still not in general use. Ten (10) per cent of all babies in the maternity department of the hospital in Leipsic, Germany, under the direction of Crede, had sore eyes and he found that by the use of a 2 per cent solution of silver nitrate as a preventive treatment that the per cent of sore eyes in the new born was reduced to one-tenth of one per cent. In other words one child had sore eyes where formerly one hundred were so effected.

Ninety-nine babies who would have had sore eyes and even blindness were thus saved by the timely discovery by Crede. This treatment is just as effective today as it was in 1881 when Crede first used

this prophylactic measure.

Dr. Miller of Pittsburg had but one case of ophthalmia neonatorum out of 1262 births in seven years hospital work. In all of his new born babies he used proper prophylaxis. Sloane Maternity Hospital in New York City give a most remarkable history, among 4,660 birth during a period of six years in which Crede's treatment was carried out no cases of ophthalmia developed.

In some states as Tennessee it is a misdemeanor or malpractice to omit the Crede method. If the baby develops sore eyes the prevention has not been used, the parent of this baby, whom you have neglected, may sue you for damages and gain the suit. "He may not be sued in the courts of the state, but he is tried and found guilty in the minds of at least three persons—the patient, who is now grown and knows it; the mother, who by this time is old and gray, and his own conscience" (Fagin).

Parents must be taught the dangers of ophthalmia neonatorum and the possibility and manner of its prevention. The prevention of blindness from this cause is an educational problem. It is only a question of reaching the people and especially the mothers to get results.

The physicians of Kansas are doing much to give publicity to the facts. If all physicians would employ the Crede method regularly all patients would expect that treatment, instead of objecting to it. It is indeed unscientific, unreasonable, for any one to shut their eyes or ears to the facts of life because they happen to be painful or even revolting. It is generally estimated that twenty-five per cent of the total number of blind people are so as the result of ophthalmia neonatorum (sore eyes of the new born).

It is said of a physician who knew the father intimately and believed him to be of the cleanest habits, that he put him on his honor to say whether he had ever had gonorrhea; on the basis of his "no" the physician did not use the preventive. On the second day the child developed a galloping case of gonorrheal conjunctivitis and though the child was immediately

removed to a hospital for expert treatment and constant nursing, the result was one eye blind. It is needless to say that this physician used a preventive in every case after this. Experience is a dear teacher,—the wise profit by the mistakes of others. If either parent has had gonorrhea previous to the birth of a child they should acquaint the accoucheur with this fact in their past history so that proper measures may be taken to get rid of or destroy the germ as soon as possible after the birth of the child, before the germs have had time to infect the eyes.

When the history can be obtained it is often found that the mother has suffered from a leucorrhea for some time previous to the birth of the child, or of the husband having recently had gonorrhea or gleet. Even when a history can not be obtained, it is the physician's duty to use the Crede method as a prophylactic against sore eyes in the new born due to this and other causes as well. If the babies' eyes are infected the doctor is to blame regardless of the kind of infection or the cause of it, in the eyes of the mother when the preventative is not used.

The disease is no respecter of persons, the babies of the city and country folks, rich and poor, civilized and uncivilized all run the risk of this disease and therefore every new born should be given the benefit of this preventive measure. The symptoms of ophthalmia neonatorum almost invariably show themselves during the first three days after birth and often they are violent from the outset.

Ophthalmia neonatorum begins with a slight redness of the conjunctiva, that can not be mistaken, accompanied by a small amount of discharge which accumulates in the corner of the eye. In a very short time the redness increases and the lids are shiny and swollen, so puffed out that the upper lid falls down and covers the margin of the lower lid.

From the moment of its first appearance its cruel work goes forward swiftly and even by the third day the child's precious sight is gone forever, gentlemen, if you have failed to check this disease early by

prophylactic and vigorous treatment after the inception of the dreadful disease. The profuse discharge of pus may start in very shortly after birth. While in cases not due to the gonococcus the course is generally benign and ordinary cleanliness will usually result in recovery without permanent damage to the sight, nevertheless every case of conjunctivitis in the new born should be considered gonorrheal, and so treated until proven otherwise. It is an unfortunate fact, but one which must be admitted, that many eyes are lost through the mistaking of a gonorrheal for a simple conjunctivitis. Experience has shown that unless the eyes having this disease are not carefully and skillfully treated that blindness results.

The physician has not discharged his duty when he prescribes an orthodox remedy, but employs no nurse, calls no consultant, fails to visit for a day or so, or longer, for a case of babies sore eyes which seems slight. The physician need not be surprised when he calls again to find ulcerations of the cornea, as the average father and mother know practically nothing of this infection, and therefore, are not alarmed until their child's eyesight is entirely gone.

We all know that if cases are seen early and intelligent and active treatment is immediately instituted and continued, that it is rare that an eye is lost. What an appalling thing it is for us to meet, as is not at all infrequent, with a little patient whose cornea are ulcerated and perforated, forever blind, and to consider what could have been done by intelligent treatment but a few days or weeks sooner.

The following factors are against an early recognition of an early involvement of the cornea, swollen and engorged lids and conjunctiva, the purulent discharge, the crying, struggling baby, by the physician unfamiliar with dealing with this class of patients. It will often escape his attention until the ulcer has so seriously involved the cornea that the child is rendered partially or completely blind in consequence.

The following influences in ophthalmia

neonatorum are active toward the production of blindness destruction of the cornea, chemosis making tension at limbus, plus pressure from indurated lids and orbicularis spasm, plus the devitalizing influence of the cocci and their chemic poison, called toxius (Breathwit). According to statistics about 37 per cent of all cases of ophthalmia neonatorum the cornea becomes involved. This per cent can be very materially reduced by the early and judicious use of mild cleansing agents and the silver salts. Dr. Savage of Nashville has said, "Every time we saved a baby's eye, a great victory was won, far greater than a brilliant cataract operation." "In the former case, we give vision throughout life; in the latter, for a few years at best."

A campaign should be instituted to make preventable disease as ophthalmia neonatorum as rare a disease as possible and to prevent its damage to eyesight. To combat the various forms of ocular disease effectively and aid in propagating the purposes of visual conservation, it is necessary that all the physicians of this state should co-operate in defusing public knowledge.

Every oculist and most all general medical practitioners know that 40 per cent of the blindness of the world is preventable. The medical profession in Kansas has done much in spreading the truth concerning preventable blindness. But withal, the profession as a whole and the public generally, in Kansas, are not giving this subject the care and attention that the importance of it demands. To what better purpose can we as a body of physicians devote a portion of our time and efforts than to interest the public in the prevention of the greatest of human afflictions the loss of eyesight by instructing them in the better care of the babies' eyes?

We of Kansas have not kept the pace that has been set for us by the people of some of the other states of the Union.

I have only to mention the effective work that has been done along this line in New York, Massachusetts, Maryland, Ohio and other states with which you are all doubtless familiar.

The state must learn what a drain on

its treasure the education and care of the needlessly blind entails, and most of all, the public at large must be made to appreciate how science and intelligence in the care of the babies' eyes can do, not only in preventing blindness, but in increasing the efficiency and comfort of our future citizens.

If physicians do not employ the Crede method because it is not convenient for them to do so, the state should make it easy for them by furnishing silver nitrate solution gratuitously in a convenient form as is now being done in several states. But the adoption and enforcement of health laws will not alone effectually care for the situation. It means that the public itself must be awakened to the cause and nature of the "baby's sore eyes," its dreadful sequelae when neglected, the ease with which it can be prevented and the urgent and positive necessity for its early recognition and intelligent treatment.

Physicians, nurses, or mid-wives should understand and do their duty. Helen Keller, who is intensely interested in the problem of preventable blindness in babies, says it is false modesty that prevents effective work against the disease. It will take publicity, education, and knowledge, to lessen the evils resulting from venereal and vaginal infections. Teach the following: Blind from birth—blind for a life time—due usually to the sin of commission on the part of one parent and in the majority of cases to the sin of omission on the part of the physician, nurse, or mid-wife.

In Illinois the laymen have an active organization for the conservation of vision. The purpose of whose organization is:

1. To collect and standardize existing information on all subject pertaining to the use and care of the eyes.
2. To secure the investigation of subjects on which present knowledge is incomplete or contradictory.
3. To promulgate knowledge relating to the conservation of vision.

There are departments of legislation, publicity, statistics and information, industrial, educational and department of defects and disease of the eye.

A similar society should be organized by the interested laymen of Kansas. If it were so organized it would unquestionably receive the co-operation and assistance of the physicians of the state in their endeavor to lessen the unnecessary and often tragic blindness that seems to be always with us.

Dr. S. J. Crumbine said a recent resolution was adopted by the Kansas State Board of Health, whereby ophthalmia neonatorum was made a reportable disease. The disease by this act has to be reported now the same as scarlet fever, diphtheria, tuberculosis, etc. Another resolution or measure that might well be adopted in Kansas would be one which would require the early and prompt reporting of all births, including in the report information as to whether or not prophylactic drops have been employed, and "if not, why?" Such regulations have been enforced in certain communities and have assisted in encouraging the use of the Crede method, as well as better informing the public officials to be on the look-out for cases of "sore eyes" that might be considered "suspicious." Helen Keller would have a law enacted in every state, Kansas as well, in which the physicians would be heavily fined or imprisoned for failing to show that they have used silver nitrate in the eyes of every baby born under their care, and that they have reported all cases of ophthalmia neonatorum. Such a law has been enforced in France for years. In Michigan there is such a statute that compels all mid-wives and physicians to use silver nitrate in the eyes of the new born. Some use a one and others a two per cent solution, but for routine practice a one per cent solution is sufficient.

The Illinois Legislature has enacted the following laws:

"Section 510. Be it enacted by the people of the state of Illinois in the general assembly.

"Should any mid-wife or nurse having charge of an infant in this state, notice that one or both eyes of such infant are inflamed or reddened at any time within two weeks after its birth, it should be the

duty of such mid-wife or nurse having charge of such infant to report the fact in writing within six hours to the health officer or some legally qualified practitioner of medicine of the city, town or district in which the parents of the infant reside.

"Section 511. Penalty. Any failure to comply with this act shall be punishable by a fine not to exceed \$100 or imprisonment, not to exceed six months, or both."

There was a bill introduced in the last Kansas Legislature which provided for the free distribution to all physicians and mid-wives of a solution of silver nitrate to be used in the eyes of all new born infants. The bill passed the House but was defeated in the Senate.

The necessity of such control is naturally more apparent to the oculist who is continually seeing babies incurably blind from this disease than it is to the other members of the profession who see these cases only occasionally or not at all.

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Are Simple Cataract Caused by Chronic Pyogenic Infection?

THOS. L. HIGGINBOTHAM, M.D., Liberal, Kan.

Read before the Kansas Medical Society at Wichita, May, 1914.

Even though I fail to establish a direct connection between the two conditions, I hope to show that a relationship exists, also secure your co-operation in further observation and investigation.

During the past year I have observed the two conditions existing in the same patients with marked frequency; in fact, fifty-four cataractous patient had chronic interstitial gingivitis, without a single exception.

It is the consensus of opinion of the recognized investigators along this line, that the ordinarily termed senile cataract, is not consequential to the senile change, but due rather to abnormal constituents of the surrounding lymph substance, from which the lens derives nutrition.

The early recorded observations of Otto Becker go to show that cataracts are caused by alteration in the nutrition of the lens, and is a mechanical process caused by adventitious substances suspended in the aqueous and vitreous. I quote Becker as follows:

"The condition is due to an interruption of the progressive sclerosis of the lens. Attacked with this disease, it shows in the outset a decided contraction of volume. The cortical substance is thus, as it were, split up. The intervals thus left are at first filled with normal fluid, the index of refraction of which subsequently changes, thus making the division more plainly visible by transmitted light. Actual opacity now occurs, the fluid constituents of the lens increases and its volume augments. The microscope shows changes in the fluid, molecular opacity and swelling in the fibers; the places of which are subsequently occupied by products of degeneration. But all this brings us no nearer to the cause of cataract. It is broadly stated that cataract is due to impaired nutrition of the lens. This merely gives the difficulty another name. How is this nutrition affected? The crystalline body possesses neither nerves nor vessels, is

suspended between two fluids, the aqueous and vitreous each also devoid of vessels, and probably in some way, receives its nourishment through them. That substances introduced into the circulation may ultimately be detected in the lens, has been demonstrated by experiments, although considerable time must elapse before their arrival can be detected. They are supplied to the aqueous and vitreous by the vessels of the surrounding parts and through them to the lens itself. Impaired nutrition of those two humors may therefore be the cause of cataracts."

In Volume 2, page 1444, the American Encyclopedia of Ophthalmology, same being the literature from which most of the citations of this paper are taken, under etiology of cataracts, the following is noted: "Although cataract is generally considered to be a senile degeneration, yet almost all pathologic states that affect nutrition of the eye-ball may produce it. In that sense it is generally a secondary disease and we know that nephritic alterations, diabetes, exposure to great heat, various poisons, arteriosclerosis, ergotism, autointoxications, eye strain, injury to the lens or surrounding parts, and heredity are regarded as causes of it."

Also on page 1580, Volume 3, same text, under heading Senile Cataract, the editor says: "The hard or senile cataract is the commonest as well as the most important form of the disease, the cortical variety being the most frequent. The normal lens gradually grows larger and denser as we grow older and exhibits other senile changes; the lenticular in particular becomes firmer and with the rest of the lens acquires a yellowish tint and transmits less light than formerly.

One should not assume from the name commonly given to this form of crystalline opacity that it represents a change more or less normal to the increase of years—like gray hairs or wrinkles—but that it is always a disease and generally a serious disease with definite pathological lesions."

Burge has analyzed the ash of both normal and cataractous lenses. Tables

giving the analysis of the normal human, the pig's, and cataractous lens are reported. The pig's lens was found to be almost identical in the percentage of ash with that of the normal human; and most of the comparisons are drawn from this and the human cataractous lens. Burge concludes that in senile cataract the percentage of potassium is greatly reduced, thereby bringing the lens nearer to the composition of the blood and lymph. He also finds that the normal lens in old age, compared with the embryo, does not show any percentage diminution of potassium. From this it is argued that senile cataract is not premature senility of the lens, i. e., the acceleration of the normal senile change, but is rather due to some cause which has interrupted the normal metabolism and brought on a moribund condition of the tissues.

As a confirmation of this theory is the curious fact that a cataractous lens obtained from India contains a large amount of calcium, potassium and sodium silicate, while those of the United States are without silicates. Is there something in the diet of the East Indian to account for this curious condition, the observer asks?

The records of Handmann, noted for their completeness, show exactly in all cases of cataract observed the nature of the opacity, its position as regards cortex, nucleus, pole or equator, and in case of peripheral opacities, the segment of the lens in which they were situated; and made the discovery that the first indication of simple cataract appeared with much greater frequency in certain quarters of the lens periphery than in others. His figures concern 845 eyes with simple cataract, in which the opacity could be called incipient in the sense that some portion of the lens was still transparent; there were 1,147 opacities, which were distributed in the regions of the lens in the following manner: Lower, 335; lower-nasal, 118; lower-temporal, 36; upper, 32; upper-nasal, 14; upper-temporal 15; nasal temporal, 67; diffuse, 65; whole periphery, 89; central, 220 supranuclear, 26, doubtful, 22. Excluding the more advanced

cases and taking only those which presented no more than one or two opacities, with normal or nearly normal visual acuity, the figures were for 391 peripheral opacities; lower 319; upper 21; nasal 40; temporal 11. Having thus shown the marked predisposition of the earlier stages of simple cataract in the lower half of the lens, he discusses the inference which may be drawn from that fact. "We know that adventitious substances, such as blood or puss, tend to accumulate in the lower part of the anterior chamber, and we may assume that pathologic products and excreta, so far as they are specifically heavier than the aqueous humor, will take the same position, and that the lower half of the lens will be less favorably situated as regards metabolic change than the upper."

There is an increase of phosphates in the urine of patients afflicted with Pyogenic Infections. This condition, i. e., phosphaturia, has been accused of producing morbid changes in the lens known as Phosphatic Cataract. Teissier, of Lyons, detected, in twenty patients with phosphaturia, three with cataract.

Dor's investigations established the fact that the normal amount of phosphates secreted in 24 hours is 3.75 grams. During an observation extending over two years, he found seven cataractous patients whose lenticular opacities could only be attributed to their phosphaturia.

Gerok gives figures to prove the so-called senile cataract to be not due to age alone. He agrees with Dor that it is always a disease and not a senile degeneration or an evolutionary product like gray hair.

We give Gerok's age table, which shows that the increase continues up to 70, then markedly decreases to almost nil at 90. Congenital, 5.8 per cent; 0 to 10, 0.7 per cent; 10 to 20, 1 per cent; 30 years, 1.8 per cent; 40 years, 3.3 per cent; 50 years, 8 per cent; 60 years, 27 per cent; 70 years, 37 per cent; 80 years, 17 per cent; 90 years, 1.7 per cent.

By the most superficial observation, we can readily see that the percentage of

cataract is greater in that period of life in which chronic focal infections predominate. No one attempts to deny the relationship between chronic focal infections and the grosser lesions of the body, such as arterial degeneration, nephritic alterations, arthritic deformities, gastric and hepatic disorders and nerve degeneration; then why, I ask you, isn't it possible for the delicate lens structure, being compelled to absorb its nutrition from the surrounding lymph which is loaded with minute particles of catabolic debris and is present in every case of simple cataract.

The term senile, used to describe cataract, is erroneous phraseology, and should become obsolete with its deceptual sister "rheumatism."

Place me on record as saying that simple cataracts are as truly preventable as tuberculosis or cancer.

————— R —————

The Mutilation of the Tonsil.

J. M. ROBINSON, M.D., Hiawatha, Kan.

Read before Northeast District Medical Society at Atchison.

Perhaps no part of the human organism has been more abused than the faucial tonsil. If the vocal cords were as accessible as the tonsils no doubt a great part of our population would be speaking in whispers. Almost every medical man has taken a hand in the massacre of the tonsil and what seems most strange is the fact that tonsils are attacked simply on suspicion, often absolutely ignoring function or the laws of pathology. The one symptom, hypertrophy, has been deemed sufficient to warrant an immediate onslaught, and the surgeon, having removed the protruding portion of the offending member, imagines he has done his full duty and, without any spasm of conscience, accepts a nice fat fee in return for his erudition.

So popular has this tonsillar war become that even chiropractors claim to remove the venemous component of this gland by a few well aimed blows delivered to the spinous processes of the cervical vertebrae. But, thank God, this is one condition for which olive oil or fasting

has not yet received recognition. I doubt not that in the near future some medical mountebank will recommend psychoanalysis as a panacea for all tonsillar perversions. It is not the removal of the gland to which protest is made, but the indiscriminate and often incomplete extirpation which is deplorable.

In order to interpret intelligently tonsillar pathology it is requisite to be familiar with the anatomy of the tonsil as well as its function and relative importance to the economy. I shall not consume your valuable time with a delineation of gross anatomy but simply wish to state a few pertinent facts relative to the function and pathology of the tonsil which have been heretofore either not generally understood, or, if understood, have not been sufficiently emphasized.

The tonsils are developed during the fourth month of foetal life and are quite immune until after the second year of life and only later on, when they become much enlarged do they have the same pathological importance that is peculiar to the lymphoid tissue of the naso-pharynx from earliest infancy. Adenoid tissue is formed at the sixth month of foetal life and it is very probable that every child is born with adenoid tissue. The tonsils are rudimentary glands and show a tendency to disappear after the first few years of life, involution being complete at about the age of fifteen. Histologically they are composed of lymphoid tissue and are a part of the lymphatic system in general, and a component part of Waldeyer's ring in particular.

In infancy and childhood the lymphatic structures are at their maximum size and it is one of the functions of lymphatic tissue to form lymphocytes. It is a peculiar fact that children with enlarged tonsils have rather a diminution of lymphocytes in the blood and there is also an increase in the total number of lymphocytes. It looks as though the enlargement of the tonsil were an attempt on the part of nature to supply the deficiency in the other lymphoid tissue of the body.

The tonsils are a part of a general de-

fense arrangement for protection of the respiratory and digestive tracts during the early years of childhood, and enlargement of the chain of lymphatic glands with which they connect is the effort of nature to raise a second line of defense. The lymph channels of the tonsils are distributed to the sub-maxillary glands, particularly those at the angle of the jaw, and from there to the superficial and deep lymphatics. The fact that tonsils and adenoids removed before the fifth year show a tendency to recur is additional evidence that the tonsillar function is necessary in early childhood.

The tonsils, owing to their exposed situation, their rudimentary character and peculiar structure, are particularly liable to infection. The histological demonstration that the tonsillar surface is not uniformly covered by epithelium, and that bacteria may traverse the tonsil without giving rise to important structural alterations in the organ, render it evident why infection of the tonsil is frequently manifested by lesions elsewhere than in the organ itself.

In childhood acute disease of the lymphatic ring is common. It represents the main lesions in scarlet fever and diphtheria and it accompanies, as a more or less important disturbance, the other acute exanthemata and influenza, pneumonia, typhoid, etc. As the tonsils bear the brunt of most of the diseases of early life it is not strange that their structure should persist and be the cause of trouble later on.

Late investigations demonstrate that the tonsils are a common portal of entry for a great many systemic infections. Internists recognize the fact that acute rheumatism is very often of tonsillar origin. Millings has proved that thyroiditis and exophthalmic goitre are frequently caused by focal infection from the tonsils. No less an authority than Babcock states that cardiac vegetations occurring during the course of a chronic tonsillitis quickly disappear upon removal of the tonsils.

Hypertrophy is no criterion by which to judge the pathology of a tonsil. The small,

buried gland is often the greatest offender of all. A very important factor often overlooked in studying pathologic tonsils is the supra tonsillar fossa. This fossa exists in a large proportion of persistent tonsils and may form a resting place for foreign bodies or concretions. It is also a convenient *cul de sac* within which micro-organisms may become enclosed by tonsillar inflammation leading to local or more general infection. It is certainly the site of the majority of quinsies and it is possibly one port of entry for the tubercle bacillus.

In determining the tonsillar etiology of disease processes the following facts should be kept in mind. First, the tonsil has a function in early childhood and that hypertrophy at this period is generally physiological; second, a healthy tonsil shows involution at about the age of puberty; third, tonsils persisting after the involutional period even if not actively diseased may be the focal point for infection elsewhere; fourth, in childhood most all effects are mechanical, later infectious; fifth, syphilis frequently involves the tonsils and the tonsil is not an uncommon route for the tubercle bacillus.

From the foregoing considerations it is evident that, in judging whether or not a tonsil should be removed, careful observation and close study of the case in hand are requisite.

When it is definitely determined that the tonsil is the etiological factor either of local or systemic disease it should be removed and completely removed. Don't make an apology to an offending tonsil with a tonsillotome. Incomplete removal by laying open the crypts not only defeats the object of the operation but often augments the condition for which relief is sought. Tonsillotomy is unscientific, unsurgical and a relic of the fossil days of laryngology. The only satisfactory operation is the radical method or tonsillectomy, the complete removal of the gland with its capsule. The argument is often advanced that tonsillotomy is the safer operation. This we admit. It is also much safer to ligate the tendo achillis

than the carotid artery.

Tonsillectomy is a major operation and in unskilled hands may be followed by marked and injurious distortion, but with good technique should have no other alteration than an approximation and occasionally a partial fusion of the pillars. Tonsillectomy should not be performed in childhood until after the fifth year unless there is some special indication, as obstructed breathing or eustachian or middle ear disease. In children it is also important to remember that if pathological conditions of the faucial tonsils and pharyngeal tonsil are treated as separate conditions the results will be disappointing. In adults chronic tonsillitis is only exceptionally a harmless disease.

Sooner or later there occur important disturbances to the health, and the small buried tonsil associated with enlarged cervical glands should always be completely removed.

Much tonsil surgery has been done with puerile and incomplete conception of the object to be accomplished. If the same tactics were applied to abdominal surgery as are often used in tonsil surgery the results would be appalling. Since the tonsil is an organ capable potentially of doing much harm to the general economy and since much harm is often the result of faulty methods employed in attempts at its removal, it behooves us to exercise more discretion in dealing with these members.

The time has arrived when exactness and efficiency are demanded in all lines of work. The medical profession is no exception, and I believe medical men are doing more efficient work today than ever before. My plea is that tonsillar surgery should receive the same consideration and be guided by the same surgical principles as are now required and practiced in other fields of surgery.

—R—

Common Errors in Gall-Tract Surgery.

C. E. Ruth, Des Moines, Iowa (*Journal A. M. A.*, Sept. 5, 1914), remarks that in no class of operative procedures for non-malignant conditions are so large a per-

centage of secondary operations called for, as in those done on the gall-tracts. In no class of abdominal work, he says, is the temptation greater for inefficient or incomplete work, and in none is complete work more difficult. In one operation for the removal of gall-stones no gall-bladder was found, but pancreatic calculi to the amount of over a thousand grains were found. Ruth is convinced that no operation in the biliary tracts is complete until examination of the pancreas has been made. The liver, gall-bladder, upper end of the duodenum, pyloric end of the stomach and abdominal wall are often found one mass of adhesions in secondary operations. Unnecessary and rough handling of abdominal viscera during operation, unnecessary wiping of endothelial surfaces with gauze, extensive and unnecessary spreading of infection over clean territory are the principal causes of these deplorable complications. In no case should the gall-bladder be attached directly to the abdominal wall in drainage operations, because of the subsequent discomfort to the patient. The drainage tube placed in the gall-bladder should pass through a stab-wound made for it and never through the main wound. Ruth recommends the median incision, as any other operative procedure necessary may be carried out in this way through the one incision. Ruth removes the gall-bladder by first clamping the cystic duct and cystic artery close to the common duct. The gall-bladder may then be separated from the under surface of the liver and removed almost without hemorrhage. In case of adhesions he finds it better to split the bladder and duct all the way down, following them from the fundus. They are then easy to trace and the hemorrhage is slight. The author gives a report of cases as abject lessons, analyzing results and necessities for secondary operations in order to prevent bad results from following operative procedures in so many cases as they do at present.

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W. E. McVEY, M.D. - - - - Editor

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The Report of the Commission.

The commission appointed by Governor Hodges has finally prepared a bill to be introduced in the next legislature. After several preliminary conferences, four members of the commission met in Topeka, December 22, and determined what the general features of the bill should be. Members of the Committee on Public Health and Legislation of the Kansas Medical Society and members of the Osteopathic Board of Examiners were present and were permitted to express their views as to what the bill should provide.

A copy of the bill, finally prepared by Senator F. Dumont Smith, of Hutchinson, has just been received by the Journal. It is unnecessary to publish the full text of the bill as the extent of its provisions may be determined from the following sections:

Section 1. The Chancellor of the State University, the President of the State Agricultural College and the President of the State Normal School at Emporia, shall constitute a Board of Preliminary Examination to examine and to certify to the educational qualifications of all persons desiring to practice medicine, surgery, or

any other form of the healing art in the State of Kansas.

Section 2 provides that the Chancellor of the State University shall be ex-officio president of the Board and that the secretary of the Board of Administration shall be ex-officio secretary.

Section 3. Any person not now licensed to practice medicine, surgery, or any form of the healing art in the State of Kansas, shall, before undertaking to so practice, present himself or herself to the State Board of Preliminary Examination before seeking a license from the State Medical Board (State Board of Medical Registration and Examination), the Board of Osteopathy, the Board of Chiropractic, or any Board established by law for the examining and licensing of such persons.

Section 4. Such person so applying shall satisfy the Board of Preliminary Examination that he or she has had a four years course in some reputable and established high school, or its equivalent, shall have spent at least four years of at least eight months in each year of personal attendance in some reputable college of medicine, surgery, or other form of healing art, which course shall include a study of Anatomy, Physiology, Pathology, Surgery, Gynecology, Obstetrics, Chemistry, Bacteriology, Symptomatology, Diagnosis, Urine analysis, Hygiene and Sanitation, and is a person of good moral character. Provided, that after the first day of January, 1920, such applicant shall also satisfy the Board of Preliminary Examination that he or she has taken a two years course in the study of Latin in such high school and at least one year in some reputable college.

Section 5. Whenever the Board of Preliminary Examination shall be in doubt as to the educational qualifications of the applicant, the Board may, in its discretion, cause such applicant to be examined by a committee selected by the Board of Preliminary Examination for that purpose.

The essence of the bill as prepared by the commission is that every applicant for a license to practice shall first present his credentials to a board composed of the

presidents of the three state educational institutions. This board will examine his credentials and if satisfied that his preliminary education and his medical education come up to the standard provided in Section 4 a certificate of such fact is issued to him and he is then passed on to one of the boards of examination now in existence, or that may hereafter be created. If this Board of Preliminary Examination is in doubt as to the applicant's preliminary education or his medical education, it may, *at its discretion*, appoint a committee to examine him before permitting him to appear before either of the other examining boards. A standard of qualifications for all those who wish to practice the healing art is fixed by Section 4. At least this section provides that the applicant must have had a high school course, and, after 1920, one year of college work and must have spent four years of eight months each in some *reputable* college in which the fundamentals of medicine are taught. The bill then provides for such amendments to the Medical Law, the Chiropractic Law, and the Osteopathic Law, as are required by this new provision. The amendments to the Medical Law and the Osteopathic Law simply provide that applicants for examination for license by these boards must present, in addition to the credentials already required, a certificate from the Board of Preliminary Examination. The amendment to the Chiropractic Law cuts out the clause describing their college requirements and adds a clause requiring each applicant to present a certificate from the Board of Preliminary Examination. In this way, the educational qualifications of chiropractors are brought up to the same standard as required of other practitioners.

It is not quite up to the standard of qualifications required by the Board of Medical Registration and Examination. It is considerably higher than the one provided for chiropractors in their law of 1913. It is practically the same as the standard of requirements provided in the Osteopathic law. By lowering the highest

and raising the lowest the commission was able to reach what might be called a fair average. The standard of qualifications as provided in Section 4 of this bill is somewhat higher than is required by the Medical Law of 1901, but the Board of Medical Registration and Examination has, for some years, been able to maintain a standard of qualifications very much higher than that fixed by the law of 1901, or the standard proposed in this bill.

The Osteopaths opposed any increase in requirements over those already provided in their law, on the ground that it would restrict the growth in numbers of their cult in this state.

It was originally the intention of the commission to require all applicants to be examined by the Board of Preliminary Examination on the subjects required in Section 4. The Osteopaths objected to this. They contended that these subjects were "taught from a different viewpoint" in their schools and that they should not be subjected to the same examination as other applicants. And, although it was shown by catalogues of Osteopathic schools that the same text books on these subjects were used as are used by regular schools of medicine, the commission compromised this point by abandoning their original plan and limited the functions of the new board to passing on credentials.

It is regrettable that the commission did not more definitely fix the standard of qualifications, that it did not define what should be recognized as a *reputable* college, or did not definitely specify the hours of study in each subject, according to some standard curriculum.

It is unfortunate that the commission was unable to ignore the special interests of all the various schools of practice in framing its proposed legislation. It was not the intention of the resolution, responsible for the appointment of this commission, that it should represent the interests of any school or all the schools, but that it should be an independent commission to devise such legislation as would best protect the people against unqualified

practitioners. It was presumed that any legislation suggested by such an independent commission would not be opposed on the ground that it was in the interest of the doctors or any particular class of doctors.

It was unquestionably in consideration of the interests of the various schools of practice now recognized in this state, that instead of providing for one board of examiners the commission has proposed to add a new board of examiners to those already in existence.

The commission relied too much upon its judgment, based upon the legislative experience of its members, as to what can or cannot be passed at the coming session. From the expressions of opinions of those who have been consulted and from the numerous letters we have received from members of the legislature, it seems evident to us that the one board proposition will appeal most strongly to this legislature. It also seems reasonable to believe that there will be less ground for opposition to a bill which ignores the existence of different schools of practice.

The Kansas Medical Society, being responsible for the appointment of the commission, is in some measure obligated to support the legislation it has suggested. How far this obligation goes must be decided by others.

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In spite of the fact that two members of the Osteopathic Board were present and permitted by the commission to express their views on every point of the proposed legislation, and in spite of the fact that every concession demanded by them was granted by the commission, a majority of the Osteopaths in Kansas, we are reliably informed, will oppose the passage of the bill.

Guy E. Owens, president of the Southwestern Association of Osteopaths, has corresponded with the Osteopaths throughout the state. He submitted to them an outline of legislation practically the same as was proposed by our legislative committee. The replies he has received, when

tabulated, show that more than sixty per cent of the Osteopaths in Kansas are in favor of a single composite board of examiners and a single high standard of qualifications for the practice of the healing art in any of its forms.

From an analysis of the sentiment of the Osteopaths, as expressed in these replies, it is evident that the younger, better educated and more progressive among them are willing to prove their qualifications by any test which may be submitted to any other class of applicants for license. They ridicule the idea that they are unable to take the same examination as is given to medical applicants.

It seems that it is the graduates of Osteopathic schools of the earlier days, when the courses were short and incomplete, those who were not so well educated and who are less broad minded, that oppose the higher standard and the one board of examination. Education makes a wonderful difference in a man's view of things and in his view of people and their motives.

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The California State Journal complains that, under their present medical practice act, too many unqualified practitioners are being admitted to the state and that reciprocity as provided by the law is not real reciprocity, but that applicants are admitted from other states whether those states admit California licentiates or not.

On the other hand it is charged by the Osteopaths that their applicants are barred by certain provisions of the law.

It seems that every one is fighting it and yet it is a splendid piece of legislation. It is one of the most comprehensive medical laws in existence. Of course there are faults to be found with it, but none which could not be easily corrected.

The California law provides for the issuance of two kinds of certificates to practice and recognises two classes of practitioners. Physicians and surgeons are permitted to use any method of treatment while drugless practitioners are restricted to non-medical and non-surgical methods.

The standard of requirements for "drug-less practitioners" is considerably lower than that for physicians and surgeons.

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The Texas medical law is less cumbersome than the California law. It is more concise, but it does not cover the subject so thoroughly. It provides for a single composite board of examiners and one standard of qualifications for all who treat disease. The only exception is in the case of obstetricians or "mid-wives" who are licensed to practice obstetrics upon passing an examination in this subject alone.

This law requires that each applicant shall present a diploma from a reputable college, giving a course of instruction covering four years of five months each, but it gives the board an opportunity to maintain a higher standard than this. It defines a "reputable college" as one "whose entrance requirements and courses of instruction are as high as those adopted by the better class of medical colleges of the United States."

There is nothing in this law which would restrict the practice of any applicant who succeeds in passing the required examination. There is nothing to prevent any licentiate under this law using any method of treatment he might choose, although it is required that he shall register with the Clerk of the District Court and state the school of practice.

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In the bill prepared by the commission appointed by Governor Hodges, it is provided that the Board of Preliminary Examination, composed of the Chancellor of the University, the President of the Agricultural College and the President of the Normal School, shall meet in Topeka on the second Tuesday in February and the second Tuesday in June of each year. If we are not mistaken these institutions are in the midst of commencement exercises about the time of the June meeting and it might be inconvenient for their executive heads to leave just at that time.

The original draft of the bill proposed by the Commission provided that the Chief Justice of the Supreme Court should be a member of the Board of Preliminary Examination. Probably he was consulted about it before the bill was finally prepared.

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· Would Create Sanitary Districts.

The Board of Health has prepared a bill for the consideration of the legislature, which, if passed, will add very much to the efficiency of the State's health service department. The essence of the bill may be learned from a few sections which we quote:

Section 1. As a means for the proper enforcements of existing sanitary laws and regulations and for the better protection of the health of communities, the state board of health shall divide the state, on a basis of population and assessed valuation, into not more than thirty sanitary districts to consist of one or more counties each, provided that the boundaries of said districts may be changed from time to time.

Section 2. In sanitary districts comprising a single county, the Board of County Commissioners, together with one member of the City Commission or City Council for each ten thousand of population or major fraction thereof, to be appointed by the Mayor of each city of the first or second class, shall constitute the district board of health, provided every city of the second class shall be entitled to at least one representative and no city entitled to more than five representatives. In districts comprised of more than one county, the Chairman of the Boards of County Commissioners, together with like representatives for cities as aforesaid shall constitute the district board of health.

Section 4. Each district board of health shall appoint a district health officer who shall be the executive officer thereof. The appointment of district health officers shall be made from a list of persons certified, after competitive examination, by an examining board appointed by the

Chancellor of the State University from members of the faculty of said institution. Candidates for such examinations shall be doctors of medicine, or doctors of public health, from a reputable institution of learning. Their moral character, training and general fitness shall also be considered.

It is provided in section 3 that the district boards of health shall hold certain regular and special meetings and that its members shall be paid only necessary traveling expenses. In another section it is provided that the district health officer shall not engage in the practice of medicine or other business. He shall receive a salary of not less than two thousand dollars and all necessary expenses including an office. The district health officer, it is provided, shall approve his own expense bills. The cost of maintaining the district boards of health will be provided for by a tax apportioned among the component counties according to the assessed valuations.

The purposes of this bill are in full accord with the rapid advance in public health affairs and the plan, if carried out, would give to the thinly populated counties all the advantages of a public health service such as are now only possible in large cities.

There are some details in this bill that will probably be found objectionable. In the make-up of the district boards of health the medical profession is entirely left out. A thoroughly trained public health man will, of course, be able to give the board such advice as it may require, but there is still a sort of feeling that the medical men of the cities and the counties will desire, and are entitled to, recognition on these boards. Another provision in the bill may at some time be found very objectionable. It is provided that appointments to the health officer jobs is restricted to those who have passed an examination given by a committee appointed by the Chancellor from members of the faculty. The University conducts a school for health officers. We suggest that this provision will as effectually re-

strict these appointments to those who have taken this course as would a definite provision to that effect in the bill. This may at the present time be a wise provision, but the future may bring forth conditions which may make this arrangement very unhandy. The most ordinary common sense principles of economy would suggest the inadvisability of permitting the health officer to approve his own bills of expense. All bills, it would reasonably seem, should be approved by the district health boards.

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Our State Bacteriologist

One of the most important branches of the health service department of the state is in need of help. There is no service rendered by the Board of Health that is more important to the physician than that rendered by the State Bacteriologist. There are a good many physicians in the state who do their own bacteriologic work. There are a good many who are fully competent to do so, but have neither the time nor the inclination. There are still others who have neither the training, the equipment nor the time. To most of the physicians of the state the State Bacteriologist has been of the greatest benefit. The benefits have not all been reaped by the medical profession. The health service has been benefited by being able to secure more definite reports of contagious diseases. The people have benefited by the more accurate and positive diagnoses.

The State Bacteriologist complains that insufficient appropriations have been made for the maintenance of this department and that the Secretary of the Board of Health failed to include the necessary amount required for such maintenance in his annual report. The amount of \$500, which has heretofore been appropriated for maintenance should be increased to at least \$1,000.00, if the service is to be kept up to its present standard of efficiency. A laboratory assistant should also be provided for. The work of the State Bacteriologist has been steadily increasing until now it is very

essential that larger provision for supplies and an assistant should be provided for. It is up to the physicians of the state to see that this department is properly cared for.

—R—
The Johnnie Baer story, which has been running in the Kansas papers for some months past, has been revised and amplified and appears in the Kansas City Star, December 27, as a touching little "human interest" story with plenty of local color and intimate detail.

The fame of this boy and his strange misfortune will soon be as widespread as the fame of Charley Ross of our youthful days.

These stories appeal to the natural sympathy of the people for those who have suffered at the hands of fate, and we applaud the generosity, the philanthropy, and the unselfish efforts of those who attempt to relieve or to mitigate the misfortunes of the afflicted. True generosity and honest philanthropy court no praise and want no reward, and let us suggest that the finer sensibilities of this unfortunate lad may be greatly shocked by the wide publicity given to his misfortune. If, however, his feelings are not to be considered against the demands of the newspaper story writers for sob effects, we do not presume that any consideration would be given to the professional modesty of the surgeon, nor to his natural aversion to the kind of notoriety such articles cause.

Of course, those surgeons who are doing work "which has certain dramatic or spectacular sides" are most frequently the victims of the enterprising story writer. That is naturally the case. These newspaper people are very persistent and it is practically impossible to prevent them getting the necessary information for a story they really want, and, in such instances as we have mentioned, there are always the hospital internes, the nurses, the spectators at the operation, or the friends of the patient, from whom the details may be learned.

It is often the gratitude of the patient, or his friends, that is responsible for these

embarrassing situations that the surgeon has to face. They have the best intentions in the world and feel that, in gratitude to the doctor for his service to them, they must spread their praise of him far and wide.

The profession generally is inclined to be suspicious of all such publicity and to blame the doctor or the surgeon concerned, although he may be in no way responsible. The writer is free to admit that he is perhaps too suspicious and too critical of such publicity. Probably because he has never been the victim of such gratitude and has never done anything of sufficient dramatic interest or spectacular effect or degree of importance to attract the newspapers. —R—

One of our correspondents has evidently gone "bug-house" if we are to judge by the following which he has just sent in. We withhold his name, hoping in this way to safeguard his hitherto good reputation.

A PAIR O'DICE LOST.

With Apologies to Milton.

Well, Hully chee! Lamp de guy wid de baby stare.

Awe, say! Don't yous read whut de poipers say?

W'y dats dat little Johnnie Dare,

He dat lost his mug in a rough house play

Wid his chum and a gun and bale o' hay.

I reads about it in de Sunday Star.

De chum wid de gun puts Johnnie's mug on de bum.

Dey picks up de pieces and puts 'em in a jar,

And brings 'em to Rosedale as fast as dey can run.

Deys got a guy up dere dat surely is a Gunn.

He picks out de pieces and puts 'em all in place,

And pins 'em together as solid as a rock.

He whittles out a nose piece and fits on a face,

Den sews it all up nice like darning up a sock.

Awe, say! Dat guy, he's Suttonly some doc.

Hully chee!

The Corral

By O. P. Davis

"If Thoughts Run Wild, Put Them in Bounds."

I understand that the editor-in-chief of this popular monthly has been carrying on shamefully here of late. These outbreaks of his on "Publicity," "How Big Is a Man" and "The State Hospital at Rosedale" are simply "outrageous" and "insulting to professional decency." You don't have to take my word alone for this. I know it is so, because I saw such a pronouncement in a letter, and the fellow who wrote the letter is one who ought to know.

Now this sort of thing should be stopped. It is nothing else than *lese majeste* to presume to criticise these persons in high places. Why, really, my dear Mc, I am painfully surprised that you would do such a thing! You are no A. Flexner, and if you were, don't you know that these people you are talking about are immune?

* * *

Seriously speaking, men in public places, or men who make themselves conspicuous, may expect to be looked at and handled some. An ornate piece of bric-a-brac or article of virtu will inevitably be turned over many times and all its marks inspected to disclose whether it is indeed genuine or flawless. And even the humblest connoisseur may do this before buying, or even in the satisfying of his curiosity. A public man or an institution should expect to be dealt with in like manner.

* * *

This Corral thing is also in bad odor with at least one gent, as will appear elsewhere in this issue. The writer of the letter referred to seems to have been unable to criticise the Corral's estimate of a certain well-advertised fair ground performance without befouling his letter with much personal innuendo. It was only after he declined to change the tone of his criticism that it was decided to retort somewhat in kind. A nice, lady-like reply would, I am sure, have been wasted on him.

I notice in the newspapers, under a Chicago date line, that Doctor Louisa Burnes, of the A. T. Still Research Institute, declares that the continuous telling of lies will wreck health. It will also, she says, make a woman grow old prematurely. The telling of a lie raises the blood pressure, says Doctor Burnes; the sphygmomanometer substantiates this. "The blood pressure being raised continuously by continuous lying, produces arteriosclerosis."

This scientific discovery is of far reaching importance, and the applications to which it may be made are obviously many. The veracity of a man or woman on any question at issue may be judged by reference to a certified statement of the person's blood pressure at the time. Preachers and politicians, however improbable their allegations, will hereafter have their sincerity, if not their credibility, openly registered. A husband or wife coming home in the small hours of the morning, will no more invent a specious fable with which to conciliate an indignant spouse. The truth will be made to declare itself. Ingenious contrivances will be invented, and men and women much in the public eye will be required, in the interests of the general welfare, to wear on sleeves or bosom, or perhaps conspicuously aloft, as they proceed among their interested fellows, the truth-declaring instrument's incorruptible dial and index.

Lecture halls and church auditoriums will perhaps be equipped with large instruments, to be directly connected with the person speaking, and showing at any moment just what credence, if any, is to be given to a statement in question, or at least what faith may be placed in the speaker's sincerity.

No doubt beautifully jeweled instruments will be designed as ornamental accessories of the attire for those fastidiously inclined. The elastic cuff will easily lend itself to adornment and purposes of decoration, and may indeed become a fetching item of a lady's toilet, gracefully worn on arm or calf.

This epoch-making demonstration is an-

other vindication of the research laboratory, and proclaims medical science as approaching more and more nearly to that exactitude to which all its votaries ardently aspire. We should, as physicians, voice our appreciation in every possible way, and do all we can to extend the practical application of Doctor Burns' great discovery.

* * *

Continuing the subject of up-to-date methods of medical research, and their practical application, as set forth in the daily press, I clip the following from a newspaper:

"Baltimore, Dec. 27.—The heart station, the establishment of which has been contemplated for some time by the trustees of Johns Hopkins Hospital, is now in operation at that institution. The purpose of the heart station is to determine the condition of a person's heart as an aid in diagnosing disease. From the heart station, in the basement of the surgical building, wires and telephones run to each ward in the hospital. The patient is put at rest, one electrode is fastened to his arm and one to the opposite leg, and the current generated by the movement of the heart of the patient is conducted by the wire suspended in the magnetic field, which is deflected according to the amount of current flowing through it.

An arc light is thrown through a condensing microscope upon the moving wire, the shadow from which is thrown through another microscope, which magnifies it six hundred times and throws the shadow through a slit at right angles to the position of the wire upon a screen.

Back of the screen is a camera with a rotating film, which takes a record picture of the movement of the point made by the intersection of the slit with the shadow of the wire.

This picture is compared with pictures of perfect normal heart currents and by this method the persons are often able to determine the nature of the patient's affliction."

This reveals to us the methods by which a Real Medical School teaches diag-

nosis of heart lesions. It is a sort of training that the American physician has long lacked, and so it has happened that many a person has had to struggle along through life with unrecognized cardiac ailments. Many a man or woman has had to live through their allotted scores of years only to die at last of some commonplace disease, when they might have enjoyed the distinction of dying sooner of some disease of beautiful, polysyllabic terminology.

From this time forth, let the patient who is dissatisfied with ancient methods of diagnosis, employing ear and finger, take comfort in the thought that some man from Baltimore may doubtless be found, who, by his wires, electrodes, arc light, camera, condensing microscope and rotating film, may properly orient the ailment, and give it a designation worthy of the patient's intellectual status and social position in life.

Of course, I am aware that this no new device, and I appreciate that the complex contrivance may be of academic interest to the student of experimental physiology. But that it should be exploited in the newspapers before a susceptible public, and the idea inculcated that a very superior grade of medical skill and training is on tap at J. Hopkins,—far superior to that which employs the old-fashioned, direct and more practical methods in common vogue elsewhere,—this is the thing that I venture to deprecate.

The truth of the matter is that these fanciful, highbrow methods, such as the clipping describes, have about as much practical value as would a study of the effects of the lunar spectrum on the colostrum in mules' milk.

—————R—————

Dr. Otto Kiene, for many years associated with Drs. McClintock and Bowen in Topeka, has purchased the practice and office equipment of the late Dr. W. R. Priest of Concordia, and will devote himself to the practice of general surgery in that city.

SOCIETY NOTES.

LEAVENWORTH COUNTY SOCIETY.

J. L. Everhardy, M. D., Leavenworth,
Secretary.

From the Leavenworth Times, Dec. 8th.

That efforts would be made at the 1915 legislature to create a state central board of medical examination for all men and women who treat diseases of the body became evident last evening at a banquet tendered at the National Hotel by the Leavenworth County Medical Society to State Senator Vinton Stillings, Representative J. M. Gilman, Representative-elect B. F. Endres and Judge Floyd Harper, county attorney-elect. Discussion of this subject and of methods best employed in stamping out contagious diseases kept the guests and physicians interested until near the midnight hour.

Following an excellent banquet, Dr. Philip B. Matz read a scientific paper of interest, chiefly to members of the profession. Then Dr. J. L. Everhardy, secretary of the county society and county health officer, read an interesting paper on "The Public Health."

In this Dr. Everhardy treated exhaustively on vaccination, pure air, pure food, hygiene education in the schools and all other matters of public health. Need of co-operation among state, county and city officials in the pushing of this work was emphasized and the visiting nurse project nearly materialized in this city was given a boost by Dr. Everhardy.

Dr. C. C. Goddard, former member of the legislature, was next called upon. Dr. Goddard complained of the alleged unfairness to the public and profession in permitting men to obtain permits or diplomas to practice medicine in a state after a few weeks or months of study while regular physicians must spend years and hundreds of dollars in study before they can enter their chosen field. Something to remedy this condition should be done in the legislature, Dr. Goddard declared. One law, one examining board was no more than just, said the doctor in concluding his remarks.

Other physicians who spoke along the same subjects, all remarking on the seeming unfairness of the present laws were: Dr. C. D. Lloyd, Dr. H. J. Stacey, Dr. Biart, Dr. C. M. Moates, Dr. Charles Brown.

Senator Stillings was called upon and expressed himself as being opposed to the same methods of treatment as the physician had described. He proposed that they draw up such a bill as they wish and see that friends in Topeka look to its passage while the legislature is in session.

Representative Gilman expressed himself in sympathy with the movement launched by the physicians. However, he believed it was first necessary to educate the masses so they would be in sympathy with the enforcement of such laws.

Representative-elect Endres made an interesting address. He told of enforcing the anti-spitting ordinance, while police judge and of aiding in drawing up ordinances for milk inspections.

Judge Harper interested his listeners for a few minutes in telling them of the duties devolved upon the county attorney in seeing to the enforcement of statutes passed by the legislators. Judge Harper's remarks called for applause.

The physicians present were: Dr. Charles Brown, Dr. I. J. McCalman, Lansing; Dr. C. C. Goddard, Dr. Ralph Combs, Dr. H. J. Stacey, Dr. A. F. Yohe, Dr. Howard Langworthy, Dr. S. B. Langworthy, Dr. F. J. Haas, Dr. A. L. Suwalsky, Dr. J. L. Fryer, Dr. Roy Brown, Dr. A. J. Smith, Dr. P. Matz, Dr. E. E. Biart, Dr. J. L. Everhardy, Dr. C. D. Lloyd, Dr. J. W. Risdon, Dr. C. M. Moates, Dr. S. L. Axford.

WILSON COUNTY SOCIETY.

The Wilson County Medical Society held its regular December meeting at the new high school building at Fredonia, Kan., Tuesday evening. Election of officers for 1915 was as follows: Dr. F. T. Allen, Neodesha, president; Dr. W. H. Young, Fredonia, vice-president; Dr. E. C. Duncan, Fredonia, secretary-treasurer. Dr. C. A. Thomas, retiring president, read a

paper on "Medical Progress in 1914." One physician afterwards remarked, "that is the best paper ever read before this society," because it started us to doing some thinking. After the discussion of the paper, those present retired to a room where a banquet was prepared by the domestic science class of the high school; and it was some banquet!

Dr. Thomas was elected delegate to the State Society, and Dr. Flack alternate. Assuming that Wilson county will be asked to have a paper at the State Society, that matter was discussed, but no one was selected. I suppose, however, the secretary will prevail upon some one to undertake this onerous task. The next meeting will be held in Neodesha, in March.

E. C. DUNCAN, Secretary.

DOUGLAS COUNTY SOCIETY.

Special Meeting—E. J. Blair, M. D., Sec'y, Lawrence, Kan.

At a meeting of the practitioners of medicine at the Y. M. C. A. building last night, the two representatives of Douglas county in the state legislature were requested to work for the passage of a law providing for a single board of state medical examiners in place of several boards which exist at present. The local physicians and surgeons believe that the standards of medical practice will be raised by this means and charlatanism will be more effectively guarded against.

Representatives Sherman G. Elliott and E. E. Stauffer were present at the meeting by invitation and heard a thorough discussion of the question of state examination. The meeting was a harmonious one, and all the physicians present, representing most of the schools of practice, agreed that the interests of the people of the state could be better served by the creation of a single board of examiners which shall uphold a high standard of medical practice.

The local practitioners believe the creation of an additional board for all the new schools of practice that arise is an error, and it was this view that the representatives were acquainted with at the meeting last night.

The following resolution was adopted to embody the views of the physicians present:

"Resolved, That we ask the representatives here present to work for a single board of medical examiners composed of the various schools of medicine now licensed in the state, such board to examine each candidate for license to practice the healing art in all branches of medicine and surgery except those branches that do not apply to the particular school of the individual candidate; each school of practice to have a member to examine the candidates of his school in those branches that apply particularly thereto; no one school to have a majority of such board."

Twenty-five, including the Osteopaths, signed the resolution.

SHAWNEE COUNTY SOCIETY.

The annual meeting of the Shawnee County Medical Society was held December 7, 1914, and the following officers elected:

President, Dr. L. V. Sams; vice-president, Dr. C. L. Williams; secretary, Dr. A. K. Owen; treasurer, Dr. W. M. Mills. Member Board of Censors, Dr. D. E. Esterly.

After the election of officers the members of the society were entertained by a local elocutionist for a short time, after which lunch was served.

SALINE COUNTY SOCIETY.

Annual meeting of the Saline County Medical Society held at Salina, Thursday, December 10, 1914. Election of officers for the ensuing year:

President, Dr. L. O. Nordstrom, Salina; vice-president, Dr. A. L. Cludas, Minneapolis; secretary, Dr. Howard N. Moses, Salina; treasurer, Dr. E. J. Lutz, Salina; Councilor, Dr. J. D. Riddell, Salina; delegate, Dr. A. G. Anderson, Salina.

Secretary reported 33 members of the State Society. Seven new members, two members of preceding year joining other societies.

Ten meetings have been held, seven at

Salina, two at Lindsborg, jointly with the McPherson County Society, and one at Minneapolis.

According to an established custom the retiring president, Dr. A. G. Anderson, entertained the society at a banquet at the Y. M. C. A., followed by after-dinner speeches, and discussion of the proposed medical legislation. Senator Harry McMillan of Minneapolis, Representatives W. H. Todd of Salina and W. S. Caldwell of Culver being invited guests and speakers of the evening.

H. N. MOSES, Secretary.

SHAWNEE COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Shawnee County Medical Society was held Monday evening, January 4, in the Commercial club rooms. Dr. B. Belove, an orthopedist of Kansas City, Mo., and lately a member of the staff of Dr. Lorenze, spoke on the subject of "Preventable Deformities in School Children." The lecture was illustrated by lantern slides, and was of more than common interest to both the physicians and the teachers who were present. Dr. Belove said that faulty seating of children in schools during the working hours increased spinal deformities about fifty per cent. So the cure is, proper seats, suited to the individual needs of the child.

In the following business meeting, this resolution was adopted:

"Resolved, that the Shawnee County Medical Society declare itself in favor of a law establishing a single Medical Board for the State of Kansas.

ARTHUR K. OWEN, Secretary.

THE FORUM.

This column is open to every member of the Society for comments, criticisms or communications upon any subject.

When any personal references are made in any contribution to this column the article will be submitted to the person to whom such reference is made and his reply will be published together with the said contribution and the discussion will be closed.

All contributions to this column must be signed.

The editor will not be responsible for anything appearing in this column.

A Criticism

To The Editor:

Under the caption of "The Corral" appears a most remarkable article entitled

"Contests and Prizes," which in fairness to those concerned and to the general spirit of progress, should not go unchallenged.

In all fairness to Dr. Davis, the author, I am quite sure he must have had a bad case of indigestion and was consequently not up to his usual standard when he penned this wonderful exhibition of puerile reasoning and bad logic. If, however, I am mistaken and the good doctor was quite in his normal health, I cannot understand how he or any other medico, laying claim to a modern education and who has kept up with the times, could expose himself so completely and so brazenly advertise to his fellow citizens that he is thoroughly out of joint with the world.

Most that Dr. Davis has written is as the lawyers say, "irrelevant and immaterial" primarily because at the very outset he calls the object of his spleen "Best Babies Contest." I am willing to grant that the analogy between such a contest and a horse race, "human race" beauty contest or any other "marathon" which the good doctor may be pleased to put up. But, and here is where he overlooked his hand, forgot his logic and disregarded the well known rules governing analogy,—if the contest in question had been as he said it was, a Best Babies affair, no examinations should have been made, for of necessity the entrants should all have been as perfect as is possible with the sons and daughters of Eve. And being such, all that would have been necessary in order to determine the winners, would have been the placing of the aspirants in a row, fully dressed, that the good old-fashioned doctor might pass along and with his penetrating eye and benignant hand give out the prizes. Yet there is a hitch even here for our premis presupposes perfection along the line, and as a consequence all would have been winners, or none would have been, or finally, there would have been no contest for how can perfection compete with perfection?

No, the doctor is wrong, it was not such an illogical affair as he would have us believe, for if the truth must be known there

were only two perfect out of three hundred and eighty! And further—if, as the doctor says, it was true that these “best” babies naked (horrors!) and terrorized and in the hands of a dozen clumsy doctors and with a thousand rubber-necks standing by, it must have been a sight indeed for men and angels. Now, this sight which presupposes a sexual curiosity must have been rather uninteresting to the man in question, considering the average negativeness of the sex development in most infants. However the angels might have been more interested as they are accustomed to dwelling in a region where there is no marriage nor giving in marriage and consequently no naked, best or worst babies to look upon.* As to the dozen clumsy doctors—I only regret that the good old Dr. Davis with his deft hands and tender ways was not there to show them how! It occurs to me at this point, that perhaps if the doctor had been exhibited in all his pristine innocence at a similar contest it might have been to his advantage at the present moment. Of course, this contest must have had no rubber-necks to gaze upon his shame or any clumsy doctors to handle him roughly, make him cry nor shock his sensibilities; or perhaps he was so exhibited and was so shocked by the ordeal that he has never recovered and therefore this plea, which is so touching in its sanctimonious cant.

But putting all gaff aside—it does seem a pity that any sensible man, such as we know Dr. Davis to be, should allow himself to appear in print in such an unfortunate manner. He knows perfectly well that his whole article is untrue and we know that he does not believe it otherwise for one moment. He is too well aware of the fact that human progress is a slow, very slow, even evolutionary, affair for me to even suggest it here. And, too, he knows and believes that any honest means whereby the race is improved is justifiable. And further, that example is the very best teacher and to point out errors is the first essential towards this correction.

In fact we feel that the “Better Baby” contest was not the bone of contention,

that there was an ulterior motive which perhaps he may be willing to divulge.

J. E. HUNT.

Dr. Davis' Reply.

I should doubtless consider myself completely squelched after the above smart slap on the wrist, especially when the smiting hand has been discerned. This man Hunt is the professor from the Rosedale seminary, who, in collaboration with Dean Crumbine, exhibited a pen of choice goo-goods at the Topeka fair last fall. The professor, at considerable expense to himself, —or others—came all the way from the Kay See Kay You to show a bunch of Topeka medical susceptibles just what was the very latest cut and style in babies. Naturally, he feels a good deal peeved if anybody commits the sacrilege of denying his oracular infallibility.

The professor may be a good hand at these fair-ground stunts. He may even get away with this spectacular legerdemain in good form, if nobody looks up his sleeve. But he shouldn't write letters for publication until he has had his very astigmatic logic, syntax and orthography properly refracted. Such a display of his discrepancies in the very rudiments of education serves to discredit any representations that might be offered by his ardent friends, or even by himself, as to his very superior qualifications for the high station of expert anthropologist. Note how he quibbles in lisping syllables and ataxic sentences about an alleged confusion of the comparative “better” and the superlative “best” in the appellation given to his show. I cannot but grieve to have thus offended his hyperesthetic sense of grammatic precision. I can only say, in apology, that I tried to conform to the designation used by the newspapers, presuming them to be correct, and well knowing them to be both food and feathers for his species. Besides, every woman who was vain enough to exhibit her baby there was confident that it was the “best” baby, and so nominated it, even though it failed of election. And the professor admits that there were two “perfect”—or

"best"—babies there. How, then, could there be any "better" babies than these "best" ones?

The professor is evidently a believer in infant damnation, for according to his statement the home of the angels is not blessed with babies of any kind. They are, he says, "accustomed to dwelling in a region where there is no marriage nor giving in marriage, consequently no naked, best or worst babies to look upon." Where does our pediatric pedagogue have all the babies go when they die, if not to Heaven?

The professor laments the sad deficiencies that I have carried with me through the years for lack of such offices as he is now bestowing so gratuitously and disinterestedly. I may, as he intimates, be much the worse for having escaped the ministrations of such a board of baby fanciers, but I am certain that I have not been the only one who has suffered such deprivation. The close friends of the professor, especially those who may attempt to get the drift of the above letter of his, must regret the neglect he evidently suffered in his early years. For, if he was not congenitally microcephalic, he must at least have had adenoids, if indeed adenoids really do cause arrested mental development.

The professor, in his last verse, chants feelingly on evolution, and leads us to infer that he and God, and a few others are working together to improve the race. The truth of the matter is that it is not the improvement of the race that he and his kind have at heart, but it is rather their own self exploitation, self aggrandizement and getting-into-the-newspapers that they and after. And they know it. And nearly everybody else knows it.

O. P. DAVIS.

Editor, Journal of the Kansas Medical Society:

In the November number of the Journal you published an editorial devoted chiefly to criticism of alleged publications of the members of the Faculty of the Kansas University Medical School, which you im-

plied to be both unethical and directly inspired.

At that time it seemed best to me to decline to notice the incident, but as repeated issues of the Journal, which supposedly represents the members of the Faculty of the University of Kansas, as well as the profession of Topeka and other cities, have showed a distinct leaning toward destructive rather than constructive criticism of the State Medical School, I think it may be well to call your attention to at least one point in the November editorial which I feel you should know.

In the subdivision of that editorial headed "Bone Surgery in Kansas City" we find a reproduction in extenso of an article appearing in one of the Sunday issues of the Kansas City Star. I do not think I am in error, in concluding that this article was supposed to have been inspired by me and to contain a more or less accurate description of some of my cases; I assume this because the publications on Bone Surgery in Medical Journals and papers read before the Medical societies, emanating from the Kansas University have been mostly over my name. As for this article, I may say that I was interviewed by the woman reporter who wrote a series of such articles concerning Kansas City men, and that I refused to furnish material for such an article.

The article which you quote I know with absolute positiveness concerned Dr. (—) who is in no way connected with the Medical Department of the University of Kansas. As to the State Journal article, I am unable to tell you anything directly, not having investigated the subject; but I think a fair investigation would show you absolutely that this article was not inspired, and that the men whose names were used in connection with it have repeatedly refused to permit this very sort of thing to appear in print, when their knowledge was directed to it in time.

It happens frequently that men who are doing work, especially of those sorts which have certain dramatic or spectacular sides, find their work getting into the public press without their knowledge. I may call

your attention to an example of this which, if you have not seen it, may serve to entertain you considerably. I have a patient in the hospital by the name of Baer, upon whom I have reconstructed about one-third of the face to replace the portions blown away by a shotgun injury. Not very long ago there occurred in the editorial page in the Manhattan Mercury an account of this injury with very laudatory remarks about myself and with no attention to the sparing of names. Interested friends have sent me copies of this editorial republished in the Emporia Gazette, in the Junction City Union, and in many other papers over the state. For this occurrence I am indeed sorry and would have prevented it if possible, but notwithstanding, I am in daily anticipation of being accused of inspiring the publication in the patient's local paper of this highly laudatory article concerning myself and my work.

You will perhaps be fair enough to admit that I am doubly unfortunate if the conclusions of individuals who are inclined to impute to me improper motives and actions in this connection are fortified by those in authority, who are generally assumed to speak only from more or less accurate and actual knowledge.

Finally, permit me to call your attention to the fact that the members of the Faculty of the University of Kansas Medical School personally welcome constructive criticisms of the conduct of the affairs of the school, but entirely fail to see the value to the state of criticism of pure destructive character. Yours very sincerely,

WALTER S. SUTTON.

Vaginitis, Caused by Yeast Cells, in a Woman.

Editor:—

I wish to report a case because of its rarity in my own experience, and my colleagues, so far as I have been able to ascertain, have never seen a similar case.

Early in November I was called to see a woman who was about eight months pregnant and found her suffering from heat and burning in the vagina. There

was a frequent pulse but no fever. A speculum was introduced with difficulty, owing to the pain and tenderness.

The vaginal walls were dry and covered with a granular whitish green substance. The cervix and labia minora were also covered, or at least one-fourth of the mucous membrane was covered in an irregular and patchy manner, much as if talcum or some other dry powder had been sprinkled all over the surface.

A swab was taken from both the cervical and urethral orifices and the State Bacteriologist reported nothing found except yeast cells.

All injections were painful. Argyrol was tried and also zinc sulphate. At last common salt, in a $\frac{1}{2}$ per cent solution, was used as a douche every three hours for two weeks, with good results.

The woman was confined on December 14. For four days after confinement her temperature was about 99.3° and pulse 90. Now, ten days after confinement, there are no untoward symptoms and the patient seems entirely recovered from the trouble. No treatment for the vagina has been given since confinement.

Did the woman have anything new or strange? Did the salt injection cure her? Will she stay cured?

E. M. CARTER, M. D.

Greensburg, Kansas.

MISCELLANEOUS.

Poisonous Fly Destroyers.

The December issue of the Journal of the Michigan State Medical Society calls attention editorially to the danger of using poisonous fly destroyers.

From July 1 to October 15, 1914, 45 cases of poisoning of young children were reported in the press of a few states, and it is pointed out that the symptoms of arsenical poisoning and cholera infantum being very similar there are possibly many more cases of the kind. It might be well in view of this danger for physicians to eliminate the possibility of arsenical poisoning before diagnosing a case as cholera infantum. A few years ago there was con-

siderable agitation against the use of phosphorous matches, partly because of some children being poisoned by eating or sucking the heads of the matches. There are doubtless many more cases of poisoning from the poisonous fly destroyers. Phosphorous matches have been abolished, so should be poisonous fly destroyers.

It seems this danger has already been recognized by the authorities in far away South Africa and the sale has been forbidden, except by licensed chemists, of certain arsenical fly destroyers, more particularly the tin boxes which have a wick or wicks through which the poisoned water is drawn. The fact that sugar is added to draw the flies makes these boxes especially dangerous to young children; furthermore all these poisonous fly destroyers are usually placed on the window sill and children as well as flies are attracted to the windows and the poisons are thus within their reach.

Both the blotting paper impregnated with arsenic, (which is put in an open saucer with water and sugar) or the tin boxes with wicks to draw the poisoned water to the surface are extensively used, and there is probably no poison so commonly and unnecessarily used where it is perforce within the reach of young children as these various arsenical fly destroyers. In country homes where it often takes some hours to get a physician, and even in our cities among the foreign born, where the parents are as is well known, slow to call the services of a physician for childish ailments, the danger is especially great. There are as effective and more sanitary ways of killing flies. Poisonous fly destroyers are an unnecessary evil and should be relegated to the past like the phosphorous match.

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The Adrenals.

R. G. Hoskin, Chicago (The Journal A. M. A., June 6, 1914), discusses the practical significance of the adrenals. On the basis of study carried on at the laboratory of the Northwestern University with special reference as to the validity of El-

liot's theory, he states that adrenal deficiency results in the loss of a substance necessary for the maintenance of sympathetic irritability; that is, the epinephrin is of importance in the transmission of impulses through the myoneural "receptive substances." He says, in summing up, it may be said that "the available evidence indicates that the adrenals secrete a substance, epinephrin, of remarkable potency. This substance selective affects the tissues having sympathetic nervous control, thereby affecting many vital functions. Adrenal discharge occurs when the individual is subject to stress, as strong emotions, pain or asphyxia. The discharge integrates the body for muscular response: (a) by shifting the blood from the vegetative to the motor, nervous and respiratory organs; (b) by increasing blood-pressure; (c) by causing discharge of dextrose into the blood for the use of laboring muscles; (d) by dilating the bronchioles, permitting freer breathing, and (e) by reducing fatigue. It also hastens the coagulation-time of the blood; a, b and c are of direct clinical importance. During quiet existence the epinephrin secretion, if occurring at all, is below the threshold necessary to stimulate the sympathetic system. Sympathetic activity *per se* is not impaired by adrenal extirpation. Adrenal destruction results in fatal asthenia of the skeletal and cardiac muscle. This is probably due to loss of adrenal cortex, not epinephrin-secreting tissue. Addison's disease is probably due, therefore, to functional failure of the adrenal cortex."

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The Proper Dosage of Diphtheria Antitoxin.

Some studies of Schick, according to the Journal of the American Medical Association, of Dec. 12, "seem to be of such practical importance for the every-day work of general practitioners as to make it desirable that every physician should become acquainted with them."

"Careful observation showed," says The Journal, "that the main effect of the antitoxin is one of immunization—that is, a

suitable dose of antitoxin renders the individual immune to a dose of toxin administered later. On the other hand, even a large dose of antitoxin has but slight effect on the action of toxin injected previously. To be sure, there is some effect on toxin introduced from three to six hours before the injection of antitoxin, and in exceptional cases an enfeeblement of the effect of the toxin introduced nine hours before the antitoxin was given; in other words, the main effect of antitoxin injection is to protect against toxin acting after the antitoxin is introduced. Further observations showed that a maximal antitoxin effect is obtained with a dosage of 500 units per kilogram; larger doses have no greater influence, either on simultaneously injected toxin or on toxin injected twenty-four hours afterward. The retroactive effect on toxin injected three hours earlier is very slight even when 500 units per kilogram are given, and such large doses have only a slightly better effect than doses of 100 units per kilogram.

"In the treatment of human diphtheria, therefore, Schick and his colleagues recommend (1) that the injection be given at the earliest possible moment; (2) that it be given intramuscularly; (3) that in all mild and medium cases of diphtheria (and these make up about 90 per cent of all cases) a single dose of 100 units of antitoxin per kilogram suffices, and (4) that in the severest cases 500 units per kilogram may be injected. In other words, in a child weighing 20 kg. (or 44 pounds), 2,000 units will, in 90 per cent of the cases, suffice, while in 10 per cent of the cases of the most severe type a dosage of 10,000 units may be given. In an adult weighing 60 kg. (or 132 pounds), a dose of 6,000 units will suffice in all the ordinary cases, whereas in the severest cases a single dose of 30,000 units may be given.

"One of the most important of Schick's observations is that repeated injections of the serum are superfluous and not warranted. Even in the severest cases, he asserts that if a dose of 500 units per kilogram be injected immediately the greatest good possible will be obtained. Subsequent

injections of antoxin after six, twelve or twenty-four hours are, he maintains, unnecessary, for any further effect of toxin is prevented by a single dose of the size mentioned. If the diphtheria patient dies, it is because the toxin elaborated by the organisms in his body has had time to act before the antitoxin was injected, and cannot by any means as yet known to us be afterward inactivated. The only circumstance in which a second injection is of value is when the first injection given has been smaller in dose than the optimal doses recommended; then one may give a single dose of 500 units per kilogram.

"In persons exposed requiring an immunizing dose, a single injection of 50 units per kilogram is sufficient.

"If the conclusions drawn by Schick and his colleagues from these interesting studies be correct, it is obvious that the practitioner will, from now on, be provided with a precise method of treating diphtheria patients hitherto much desired."

—B—

Hyperthyroidism.

The relations of pathologic conditions in the nose and throat to the origin and treatment of hyperthyroidism is the subject of an article by S. P. Beebe, New York (journal A. M. A., Aug. 29, 1914.) He first notices the theories of the internal secretion and its functions and shows how experiments and clinical observations have demonstrated its antitoxic actions and protection against various pathologic conditions. The relation of thyroid disease to previous infections has been noted clinically by many observers. The terminal event in hyperthyroid patients is often an infection which has begun in the tonsils, and Beebe says that he has not seen a necropsy in these cases which did not disclose the characteristic pathology of status lymphaticus. He also mentions the common occurrence of hyperthyroidism in women and its relation to the function of the sex-glands as bearing on this question. A large percentage of patients with exophthalmic goiter have enlarged tonsils

and adenoids, and give a history of repeated attacks of acute tonsillitis. It is not uncommon for them to date the beginning of the goiter to one of these. Infections of the nose and throat are undoubtedly the commonest to which man is subject, and many of our ills might, if one was so disposed, be credited to them. Recent experiments as to the specific infection of hyperthyroidism are mentioned by Beebe and he says if the thyroid secretion is an important element against infections it is not impossible that it is stimulated to over-activity when occasion calls for it, and if this is too often repeated the gland may become enlarged and a pathologic condition induced. It is not a rare thing to find that a rapid enlargement of the thyroid with characteristic symptoms of over-activity has immediately followed a particularly severe tonsillar infection. Such patients bear these infections badly; are prostrated and slow in getting well. In exophthalmic patients there is no more dangerous or troublesome factor than the tonsil infections to which they are liable and they should be carefully guarded against them. If the patient's condition permits, tonsils and adenoids should be removed. This should not be done, however, during active thyroid intoxication without appreciating the fact that these patients bear operations badly, and every precaution should be taken to avoid shock. It becomes at times more important in exophthalmic goiter when considering operation to first attend to the infected areas. Beebe says that every young patient with an enlarged thyroid should have a careful examination of the nose and throat and the converse is equally true. Between the age of 12 and 20 is the beginning point of most thyroid enlargements and it has been his observation that the combination of enlarged tonsil and adenoids, gastric disturbances and constipation and an enlarged thyroid is the beginning of the condition which does not usually attract much attention unless the patient is annoyed by the cosmetic defect in the neck. Hyperthyroidism can be checked in such patients before serious damage is done if its

beginning can be recognized. Too frequently it is overlooked.

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Thrombosis and Embolism.

ANGUS MCLEAN, Detroit (*Journal A. M. A.*, Aug. 29, 1914), discusses the etiology of thrombosis and embolism, and gives the results of his experiments in the artificial production of thrombosis in dogs. Several interesting phenomena were observed. When a vein is ligated in continuity, the clot occurs on the distal side of the ligation. In ligating a vein between ligatures, say 2 inches apart, the blood between the two ligatures coagulates very slowly and the contents disappear within a week, leaving only a fibrous cord-like structure. Simple crushing of a vein will not cause a clot at the point of crushing. Crushing a vein and introducing a twenty-four-hour culture of bouilloin culture of staphylococci and again crushing to force the cocci into the wall of the vein will not produce a thrombosis at the injured point. Introduction of a sterile thread into the lumen of a vein, leaving it free in the blood-stream, fails to produce a clot at the point of introduction of thread or on the thread itself. The introduction of a thread with *Staphylococcus aureus* or *albus* will in three or four days cause the formation of a thrombus floating free in the vein and only attached at the point where the thread enters and growing in the direction of the blood flow. It is easy to see how this thrombus might be loosened and become lodged in the pulmonary circulation. The difficulty thus found in producing the thrombus shows that there must be factors other than the injury to the vessel, slowing of the blood-stream and infection causing thrombosis in the human subject. In necrosis substances are produced that coagulate the blood that comes in contact with the necrotic tissue, but just how is not thoroughly known. It is possible, when thrombosis occurs after a surgically clean operation, that ligatures have cut off the circulation and produced necrosis in certain parts, liberating the substances into the blood-stream that cause coagulation.

Statistics show that thrombosis and embolism follow operations for large pelvic tumors more often than any other operations. The striking thing in all cases of their series was that there was only one case of embolism with recovery, and no cases of thrombosis following operations on the upper abdomen. In cases most often followed by thrombosis and embolism, there is always a certain amount of pressure on surrounding structures, and there has always been ample opportunity for devitalized threads and remnants to be left. McLean says the most striking proof that necrosis causes thrombosis is in the operations for pyosalpinx where the whole fallopian tube is necrotic, and those for necrotic appendix where ligation is not necessary on account of thrombosis in the surrounding veins and arteries. His conclusions are: "Endothelial damage, on which so much stress is usually laid, is not, *per se*, a cause of thrombosis. Necrosis of tissue plays an important part in the production of thrombosis. The main contributory causes are probably a low-grade infection, not of sufficient virulence to be noted clinically, and slowing of the blood-stream."

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Lactic Acid Bacilli Gargles.

E. V. GOLTZ and W. D. BRODIE, St. Paul (*The Journal A. M. A.*, June 6, 1914), report results of experiments reundertaken by them to determine the value of lactic acid bacilli injections in treating diphtheritic sore throat. Mulford's Bulgarian type cultures of living bacilli were used after testing their activity on agar slants, and naturally soured milk was also used. The nose and throat were sprayed, 2, 3 and 4 times daily with individual atomizers with the bacillus cultures and the naturally soured milk was used as a gargle and as a nasal douche on patients four or five times daily. Six cases and their controls are reported, and the following conclusions given as reached: "The average quarantine period of the six cases reported in which the lactic bacillus is twenty days. The average quarantine period of the six

controlled cases treated locally only with Seiler's solution as a gargle is sixteen days. The average quarantine period of fifty-seven cases admitted to the hospital during January, February and March, 1914, comprising all cases discharged with the required cultures is twenty-one days. Lactic acid bacilli in our experience hasten the disappearance of diphtheritic membrane, but will not produce culture negative to the bacillus."

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Studies Concerning Diabetes.

F. M. ALLEN, New York (*Journal A. M. A.*, Sept. 12, 1914), summarizes the results of his previous investigation as follows: Removal of portions of a dog's pancreas produces a lowering of the sugar tolerance; of nine-tenths, severe diabetes. With a larger remnant milder forms are produced. The course is chronic and the end fatal. The islands of Langerhans become altered and finally disappear. The changes were shown to be specific to diabetes. The hypotheses of the disturbance of carbohydrate metabolism as due to a lack of proper combination of this substance, found apparent confirmation, and the combining substance was given the name of "amboceptor" to indicate its function as a bond between tissue and sugar. This substance is supposed to be furnished by the islands of Langerhans. Ligation of the pancreatic duct resulted in the cessation of a diabetic condition already begun, though this, in the dog, gives rise after a time to the Sandmeyer type of diabetes. Allen gives the results of his present investigation in which he used cats and dogs as the subjects of experiment. Mild, transitory, intermittent forms of glycosuria doing the animal little harm can be produced in cats, and in this form there is a tendency to recovery. This type may be compared to the mild, relatively benign human cases supposed not to be of pancreatic origin. This result followed the removal of portions of the pancreas, varying in size according to the type of the disease desired. After removal of sufficiently large portions of the

pancreas, dogs show a heavy glycosuria on a meat diet and during considerable fasts. This condition progresses to a fatal end. With a larger remnant of pancreas, the dog is free from glycosuria on a meat diet, but bread feeding produces glycosuria. If this is too long continued the glycosuria continues even on a meat diet, though in the early stages it may be made to disappear by a return to the meat diet. With a still larger remnant sugar feeding may produce a temporary glycosuria, but it cannot be made to continue. Clinical observations indicate diet as an important factor in the production of human diabetes. People who use an excess of carbohydrate or are of luxurious habits or sedentary life, are thought to be predisposed to this disorder. The experiments on animals indicate a relationship between diet and diabetes. If the pancreatic function is weak, diabetes may come on in early life, and in these persons an excess of starch in the diet may serve as an exciting cause. In others an excess of sugar is an effectual cause. According to the "amboceptor" hypothesis, a sufficient amount must be furnished for metabolism. When this is reduced diabetes appears. When the animal's food consumption is suitably reduced a pancreatic remnant otherwise insufficient may become sufficient; diabetes under these conditions may be prevented or checked after it has appeared. A limited number of patients have been treated by a method based on these principles. If the patient is moderately emaciated with a negative carbohydrate balance and acidosis, he is put to bed and receives no food whatever. If coma seems imminent the usual emergency measures are carried out. In addition to fasting, alcohol is important in the treatment at this stage. From 50 to 250 c.c. of whisky or brandy may be given in small doses in each twenty-four hours. As soon as the glycosuria stops and the acidosis is diminished, the amount of alcohol and alkali may be diminished. Fasting and a moderate amount of alcohol are continued for from twenty-four to forty-eight hours longer, depending on the patient's strength.

The alkali is then stopped and feeding with starch commenced in order to clear up the last traces of ketonuria. Green vegetables may be given in considerable bulk, as they relieve the patient's feeling of emptiness. Neither fat nor protein is added. If glycosuria remains absent the ration for the next day is doubled. On the next day if glycosuria has not appeared carbohydrate may be increased to 100 gm., but if glycosuria appears another fasting-alcohol day is interposed. Even in severe cases ketonuria has been made to disappear by this method. The diet is so chosen that glycosuria and not ketonuria is the signal of overstrain. Fasting-alcohol days are given at close enough intervals to prevent this signal from appearing. Each day's diet is calculated exactly and the nitrogen balance is watched. The attempt to increase in weight should be the last step in the procedure. The attempt is made to keep the metabolism at the lowest safe level until the patient is taking from 100 to 150 gm. of carbohydrate (mostly as green vegetables) daily, with fast-days interposed often enough to prevent glycosuria from appearing. Then protein is cautiously added, always being kept rather low, and finally the weight may improve under gradual additions of fat. In mild cases the treatment may be correspondingly milder. The best therapeutic hope from this form of treatment lies in the application of this principle of treatment at the earliest possible stage in diabetes.

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How Deep Should the Tube introduced in Intra-Tracheal Insufflation Be?

S. J. MELTZER, New York (*Journal A. M. A.*, May 16, 1914), refers to his previous papers on the subject and explains the misunderstanding of his statements. He thinks that the current practice of introduction of the tube deprives the surgeon of an important diagnostic point. "The diagnostic point is to make sure that the tube is indeed in the trachea and not in the esophagus." The presence or absence of a short reflex cough is no indication

where the tube is. He urges the disuse of catheters which have only lateral openings. "For the sake of etherization as well as for an efficient artificial respiration when needed, it is of some advantage to have the opening at the end of the catheter."

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Bacteriology of Infections.

E. C. ROSENOW, Chicago (*Journal A. M. A.*, Sept. 12, 1914), describes his methods of making cultures, particularly from excised tissues and from the blood and other fluids, in which due regard is paid to the question of oxygen pressure, particularly in the primary culture. He also reports the results obtained from the use of these methods in various infections. The description is quite detailed and does not lend itself very well to abstracting. The strictest aseptic precautions are used, usually under local anesthesia, in the excisions of the tissues which are emulsified, a portion being reserved for microscopic examination. Similar care is used in the preparation of the blood-cultures. The methods are similar to those employed by Theobald Smith and Noguchi but they afford not only anaerobic and aerobic types, but also a gradation of oxygen pressure between these two points, a gradation of H and OH ions and a wide range of nutrition. Positive cultures have been obtained frequently while cultures made in the usual way remain sterile. A considerable number of diseases have been investigated, including arthritis, Hodgkin's disease, gastric and duodenal ulcer, cholecystitis, exophthalmic goiter and ovarian disorders. "The common localization and lesion produced on intravenous injection of streptococci soon after isolation from acute rheumatism, from arthritis deformans, from ulcer of the stomach and from the tissue of the gall-bladder in cholecystitis and the center of gall-stones, together with other facts, suggests strongly that they are not secondary invaders but the important etiologic factor in these conditions because the strains from rheumatism commonly produce arthritis, endo-

carditis, myocarditis and pericarditis; the strains from arthritis deformans, arthritis and myositis but rarely endocarditis or pericarditis; the strains from the depths of ulcers of the stomach often show a striking affinity for the mucus membrane of the stomach and duodenum (dogs and rabbits); while those from the gall-bladder and the center of gall-stones commonly produce cholecystitis. The bacillus isolated from erythema nodosum when injected as isolated showed a marked affinity for the subcutaneous tissue of dogs, rabbits and guinea-pigs, producing localized hemorrhages followed by infiltration resembling the nodes seen in man, the lesions often being symmetrically placed usually near a relatively large blood-vessel. On artificial cultivation and on animal passage the strains lost this peculiar property. In both instances the organism tended to become a streptococcus and on passage it acquired an affinity for the joints, fascia, muscles and endocardium. This fact would seem to afford an explanation of the common occurrence of arthritis and sometimes endocarditis in erythema nodosum and allied conditions." The almost constant diphtheroid organisms in the glands and their presence in the blood in Hodgkin's disease, as well as the experimental work of Bunting and Yates and others, as well as the results of autogenous vaccine treatment, suggest them as a casual factor of the disease, but their presence in other diseases leaves it still in doubt. The fact that an organism has been isolated by Rosenow from the thyroid, closely related to the streptococcus group, and the production of goiter in dogs from its introduction into the blood, suggests actual local infection in goiter instead of merely a toxic infection. The significance of the finding of streptococcus in cystic ovaries is not yet clear but Rosenow thinks that they are not wholly secondary or harmless invaders. The *B. Welchii* or an organism closely related, has been isolated from various tissues in man 103 times and from the blood or joint fluids 6 times. It has also been found in the tissues of dogs

and occasionally in livers of rabbits and guinea-pigs. Since it is an anaerobe and spore-bearing, every possible source, especially the serum and ascitic fluid, other than the tissue inoculated has been excluded by control tests. The common presence of this organism in the tissues of carnivorous animals and its absence in herbivorous ones is, Rosenow believes, of significance. It probably exists in the tissues in the spore form and requires a certain oxygen pressure to grow. He thinks it may not be an entirely harmless invader. Whatever the ultimate significance of the findings may be, the common isolation of bacteria from tissues regarded as sterile, Rosenow says, lends support to the contention of Adami and others that certain ill-understood conditions are due to a low grade infection and not merely to a toxic factor.

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Urea Distribution in Uremia.

"When the excretion of urea is prevented, either experimentally or by disease in the case of nephritis, the entire amount formed is stored in the body with the exception of small amounts secreted in the bile, sweat, etc. Here, as is usually the case," says *The Journal of the American Medical Association* in its issue of September 26, its distribution is very general and uniform. No evidence whatever has been obtained of the possible transformation of urea into other substances in the body. This fact, taken in connection with the case with which urea is distributed, excreted, or stored up as the case may be, is not without significance in relation to the symptoms observed in uremia. The chemical and physiologic properties of urea are such that it ought to be a non-toxic substance and the newer experiments show it to be non-toxic in any moderate or fairly large amounts. Only when introduced in enormous doses so that it approaches a concentration of 1 per cent of the tissues in general does it produce a fatal effect. For this reason the Baltimore investigators conclude that it is improbable that urea is the only toxic in

uremia, as has been supposed by some writers, although it may take some share in producing the symptoms of this condition."

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The Salicylates in Rheumatism.

J. L. Miller, Chicago (*Journal A. M. A.*, Sept. 26, 1914), gives a brief historic note as regards the introduction of the salicylates into the therapeutics of rheumatism, and reproduces and analyzes certain statistics of their use. From these it appears that the pain and active inflammation in the joint is controlled, at least temporarily, by salicylate treatment. The figures as to complete recovery are not materially modified. High degrees of heat may act in the same manner, and from what we know at present it would not seem justifiable to call the salicylate a specific in rheumatism. He briefly reports some experiments made on rabbits to observe the effects of the salicylates on the bacteriology of the disease. All authorities agree that the salicylates have not lessened the degree of cardiac complications, and Miller summarizes his opinions from the study as follows: "As salicylic acid after absorption circulates and appears in the tissues as a salicylate, it cannot act as a germicide unless the increased carbonic acid tension in the joint, the result of inflammation, reconverts it into salicylic acid. Statistics show that patients receiving salicylate are free from pain much earlier than those not treated. As the treated patients much more frequently relapse than the untreated, however, the total duration of pain in the treated and untreated patients may not be materially different. The period of stay in the hospital of patients receiving salicylate and of those receiving other forms of treatment is the same. Cardiac complications are not less frequent since the use of salicylates. In rabbits the prophylactic use of salicylate is of no value in preventing arthritis after intravenous injections of hemolytic streptococci."

Some Breast-Milk Problems.

While the advantages of material nursing are generally conceded there are, says A. W. Myers, Milwaukee (*Journal A. M. A.* Oct. 3, 1914), some real difficulties that arise not infrequently in the course of breast feeding. A great deal has been done in the way of making material nursing more uniformly successful by calling attention to more regular nursing habits, proper intervals and the need of rest, fresh air and proper exercise for the mother. The importance of cheerfulness and serenity of mind must not be overlooked. It would be an injustice, Myers says, to charge all mothers that give up nursing with indifference or neglect. A frequent story is that the milk did not agree with the child and many mothers have consulted physicians and have done all in their power before giving up. Only general directions are given in text-books as for the means of modifying the breast milk. The effects of the various foods on the cow is well recognized but the effects of diet of nursing mothers has received too scant attention of recent years. The child with unsatisfactory breast-milk is uncomfortable, especially after nursing and there may be or may not be disturbance of the stools and, in mild cases, sometimes no loss of weight. In the early weeks of lactation the restlessness on the part of the baby is easy to trace both from the quantity and quality of the mother's milk. If the child is continually in distress the mother has little opportunity to regain strength and the quantity of the milk fails. Three cases are reported illustrating the conditions in which the trouble was traced to some error of diet on the part of the mother, the correction of which brought about a better condition of things. It is possible, Myers says, that some of the aromatic bodies which give flavor and odor to food substances pass over into the human milk just as they do into cow's milk. These aromatic bodies are not destroyed by cooking. There is also a great variation in the sensitiveness of the digestive tracts of babies and of the same baby at different ages. Myers thinks the best way of

approaching these cases is to begin by forbidding entirely for the nursing mother the use of fruits, fruit derivatives, spices, and highly flavored vegetables at the beginning of lactation, or when digestive disturbances are manifested, and withholding them until the normal condition is regained. An ample and varied dietry can be provided without these substances and he would prescribe this for the first month. After that additions can be cautiously tried, one at a time, to avoid confusing results.

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The Distribution of Urea in the Body.

"It requires no argument," says *The Journal of the American Medical Association* in its issue of Sept. 26, "to establish the importance which urea has in the chemistry of the living body. Any substance which is formed in the organism to the extent of 30 gm. or more a day, and which is ordinarily excreted with extreme promptness, deserves consideration as a product which needs to be handled appropriately by the normally functioning individual and as a possible factor of danger in disease. The newest investigations have proved that urea occurs in all of the organs and tissues of the body. More significant than this widespread distribution, however, is the fact that it occurs throughout the body in approximately uniform concentration. This is true both in normal conditions and in cases in which, owing to such interference with excretion, an abnormally large amount of urea is present. An exception to the rule is found in the case of fat. This fact, however, is not surprising in view of the well-known slight solubility of urea in fats and the added fact that only relatively small amounts of water are present in adipose tissue. The somewhat higher content of urea found in the kidneys and other parts of the urinary tract is readily understood as the results of the unavoidable contamination of these organs with urine.

THERAPEUTIC NOTES

Every advertiser in this journal is paying you for the privilege of telling you about the things he has to sell. You should read what they have to say.

If you have never tried the cathartic properties of Abilena it will be well worth your while to do so. Remember that Abilena is a Kansas product and like many other Kansas products is the best there is.

The Uncle Sam Breakfast Food Company has a nice large sample of breakfast food that they would like very much to send you if you will fill out the coupon and send it to them. Don't forget that they are paying you for the space which that little coupon occupies.

Hettinger Bros. Manufacturing Co. are advertising, in this issue, a new retractor which may be of interest to you.

We have just received one of the general catalogues issued by the Frank S. Betz Co. This contains nearly three hundred pages of illustrations and prices.

HYPODERMIC MEDICATION.

Perhaps no procedure in medical practice is more common or more essential than that of hypodermic injection. How important, then, that the tablet employed for the purpose be in all respects as nearly perfect as possible—for, be it remembered, hypodermic tablets are emergency agents. When the physician resorts to this form of medication he wants results, and he wants them promptly. It behooves him, therefore, to choose his hypodermic tablets wisely, with due regard to the maker's reputation for producing tablets that are correct as to purity, activity, solubility, identity and uniformity.

Probably no manufacturers are more scrupulously particular with respect to all these essentials than are Parke, Davis & Co., whose long identification with the production of hypodermic tablets and whose equipment for this branch of manufactur-

ing pharmacy are positive assurances of trustworthy products. Parke, Davis & Co. lay particular emphasis upon the free solubility of their hypodermic tablets. And this is a quality that should not be lightly considered. There is a wide difference between solution and disintegration. Some tablets fly to pieces quickly enough when shaken in water, but the particles do not dissolve quickly. Such tablets cannot be depended upon to produce the desired therapeutic results. The materials entering into Parke, Davis & Co.'s hypodermic tablets are exhaustively tested for purity. They are checked, cross-checked, tested and retested for identity. Seemingly every care is exercised that the ultimate product shall be as nearly perfect as human skill can make it.

Probably ninety per cent of the patients who find it necessary to visit sanitariums are recruited from sedentary occupations. Their occupations in many cases account for their illness. Epitomized, it may be said that lack of exercise is a very large contributing cause in the ills of mankind.

At the Battle Creek Sanitarium this fact has long been recognized and every thing possible is done to combat sedentary effects. A large and excellently equipped gymnasium forms a very important part of the health equipment. Classes are held constantly throughout the day, the form of exercise being constantly varied so as to provide proper exercise for persons in varying stages of health and strength. In addition a military march is given twice daily, during which the patients find themselves walking one and even two miles without the feeling of exhaustion or exertion. In order to gain the advantage of outdoor exercise, frequent walking classes are organized under the direction of physical directors and short health-giving hikes are taken to points of interest in and around the city.

NEW AND NONOFFICIAL REMEDIES.

Since publication of *New and Nonofficial Remedies*, 1914, and in addition to those previously reported, the following

articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies."

Pasteur Antirabic Vaccine.—The virus is prepared according to the method of the Hygienic Laboratory, Washington, D. C. A dose is sent by mail each day. Twenty-one to twenty-five doses constitute a treatment. Laboratory of W. T. McDougall, Kansas City, Kansas.

Solution Pituitary Extract.—A solution of a purified extract of the posterior lobe of the pituitary gland of the ox. It is assayed so that 1 cc. represents 0.2 gm. fresh gland. It is used by hypodermic or intramuscular injection mainly to stimulate the uterus contraction in labor. It is supplied in the form of Ampules containing 1 c.c. Solution Pituitary Extract. The H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Dec. 5, 1914, p. 2043.)

Radium Bromide.—The market supply is a mixture of radium bromide and barium bromide and is sold on the basis of its radium content. It is sold for use in applicators, inhalatoriums and injection solutions. Radium bromide is marketed as:

Radium Bromide, Radium Company of America.—All deliveries are made subject to the test of the U. S. Bureau of Standards or any reputable expert designated by the purchaser. The Radium Company of America, Sellersville, Pa.

Radium Bromide, Standard Chemical Co.—Sold by the Radium Chemical Co., Pittsburg, Pa. (Jour. A. M. A., Dec. 26, 1914, p. 2289.)

Radium Carbonate.—The market supply is usually a mixture of radium carbonate and barium carbonate and is sold on the basis of its radium content. It is sold for use in applicators. Radium carbonate is marked as:

Radium Carbonate, Standard Chemical Co.—Sold by the Radium Chemical Co., Pittsburg, Pa. (Jour. A. M. A., Dec. 26, 1914, p. 2289.)

Arbutin, Merck.—This brand of Arbutin has been accepted for inclusion with New and Nonofficial Remedies. Merck and Co., New York.

Radium Chloride, Radium Co. of America.—This form of radium chloride has been accepted for inclusion with New and Nonofficial Remedies. Radium Co. of America, Sellersville, Pa.

Radium Sulphate, Radium Co. of America.—This form of radium sulphate has been accepted for inclusion with New and Nonofficial Remedies. Radium Co. of America, Sellersville, Pa. (Jour. A. M. A., Dec. 26, 1914, p. 2290.)

Cupric Applicators (Copper Sulphate 20-25 per cent).—Wooden sticks 6½ inches long tipped with a mixture of copper sulphate, alum and potassium nitrate, containing 20 to 25 per cent copper sulphate. Antiseptic Supply Co., New York (Jour. A. M. A., Dec. 26, 1914, p. 2290).

During December the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

Merck and Co.:

Arbutin, Merck.

Benzene, Merck H. P., Crystallizable.

Digitoxin, Merck.

Silver Citrate.

Silver Lactate.

E. R. Squibb and Sons:

Pyocyaneus Vaccine: Boxes of 2 ampules containing respectively 100 and 500 million killed bacilli.

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Autoplastic Bone-Pegs.

C. Davison, Chicago (*Journal A. M. A.*, May 16, 1914), says that in simple fractures Nature practically makes her own splints better than we can apply them and without disadvantage of foreign non-absorbent bodies. If we could imitate her processes by bridging the fractures with autoplastic bone pegs our work would have better results. In the six cases he reports bone splint material was taken from the tibia of the patient and pegged across the fracture line, use being made of the medullary space as a canal when practicable. The article is illustrated.

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ORIGINAL ARTICLES.

The Surgical Treatment of Intestinal Stasis Due to Cecum Mobile and Coloptosis.

BY GEO. M. GRAY, M. D., Kansas City, Kan.

Read Before Kansas Medical Society, Wichita, May, 1914.

The last ten years have made great changes and added much to our knowledge of the causes of certain symptoms referred mainly to the abdomen or stomach, and accompanied by nervous symptoms and changes in the nutrition of the individual, well known to all as neurasthenia.

The cause for this condition has been given much attention by surgeons, internists and orthopedists in all parts of the world.

In 1853 Virchow described adventitious tissues or abnormal development of membranes within the peritoneal cavity, and speculated on their significance, but in his day the subject of intestinal stasis and toxemia had not been developed, and the observations of Virchow did not attract much attention and were passed by until 1903, when Dr. Robert T. Morris of New York presented a paper which was published in the New York Medical Record for December 26th, 1913, under the title: "Intestinal Fermentation as it Interests the Surgeon."

The same year Mr. Lane of London published his paper entitled: "Chronic Obstruction of the Cecum and Ascending Colon." From this time there began an

evolution of ideas in connection with intestinal stasis and its causes by medical men all over the world, Mr. Lane being conspicuous on account of his very pronounced views and the radical measures he advocated for its relief.

In an article which he read before the Congress of Surgeons of North America at its meeting in New York City in November, 1912, and published in the Journal of Surgery, Gynecology and Obstetrics, June, 1913, Mr. Lane asks the following question:

"From a common point of view, and freed from the bias of a creed which was instilled into us from the time of our medical infancy, what is intestinal stasis?" and proceeded to answer the question in the following language:

"The gastro-intestinal tract is a living, sentient drainage scheme, of which the several portions perform several functions, from which nutrient material is picked up by absorbing vessels, and into which certain organs discharge their contents. In some portions, organisms thrive normally; in others, the presence of the same organisms produces poisonous products which that segment of the tract is unaccustomed to dealing with. These poisons being absorbed, damage the tissues of the body, causing them to degenerate and reducing their capacity to combat successfully organisms which may invade them.

"Any delay in the passage of the contents of the drainage scheme has a three-fold result on the organisms found in the intestines. Their multiplication is facilitated, they extend beyond the limits of

their normal habitat, and extraneous strains are developed.

"These organisms may extend along the ducts of the organs which open into the drain pipe, and they or their products, carried in the blood stream, may infect organs which do not directly communicate with the intestine; for example, the kidney."

The nervous system is markedly affected in intestinal stasis, and it has seemed to me that the severe nervous disturbances seen in connection with visceroptosis, can best be explained by the intestinal stasis that is always present, especially in coloptosis.

As is pointed out by Mr. Lane, the large intestine is not the sole source from which these toxins are derived, and stasis in the small intestine with the associated infection of its contents by organisms to which it is unaccustomed, is not primary, but is secondary to stasis in the colon.

In other words, if it were not for the presence of the colon the conditions producing stasis in the small intestine would not arise. If the cecum did not become over-loaded as a part of a colonic stasis, obstruction at the end of the ileum would not develop; consequently, infection of the contents of the small intestine by extraneous organisms would not occur.

The obstruction in coloptosis, where the cecum has left the shelf and gravitated into the pelvis, and the transverse colon has sagged down in the center until its low central part is in the pelvis, but still fixed at the hepatic flexure, and the splenic flexure must labor under a severe handicap in passing the contents along, first up over the hepatic flexure then again up over the splenic flexure, and again, when the cecum is occupying this position in the pelvis, it is not unlikely that the ileo-cecal opening and terminal ileum are obstructed, and the free passage of contents is interfered with in the ileum, this being a cause for the stasis.

The ileum is frequently obstructed in its terminal portion by bands that extend either across the lower portion of the

cecum or appendix on to the ileum producing a kink in the ileum, or up from the pelvis across the cecum and on to the ileum, holding the ileum down and producing a kink about two inches from its termination in the cecum. This has been pointed out by Mr. Lane and known as the Lane kink.

In three cases coming under my care during the last year, there was a distinct kink in the terminal ileum, caused by the genito-mesenteric fold, all in females, and the band extended from the broad ligament directly upward on to the cecum, and over on to the ileum, much as described by Dr. Eastman in his paper on foetal peritoneal folds. Traction in an upward direction could be seen to lift the ovary up. Examination of the ileum showed a distinct furrow or sulcus at the point where it had been bent upon itself, and was relieved by the division of this band. Division of such bands that are clearly producing obstruction at some point, with sutures of the raw surfaces, is, as a rule, followed by marked improvement, both as to the relief of abdominal pain, constipation and the toxemia from which they suffer.

In practically all the abdomens I have opened during the past year, I have examined for the bands described by Dr. Jackson and known as Jackson's veil, and have never found it absent in cases of ptosis of the cecum and ascending colon; more marked in some than in others, but always demonstrable. In only two cases did it seem capable of producing any obstruction.

As a rule in ptosis of the cecum, the lower two or three inches of the cecum are free, and the ascending colon is well covered up to the hepatic flexure, always assuming a very oblique direction from above downward and inward, and seldom extending beyond the mid-line of the ascending colon. Traction on the colon always brings into view the white line spoken of by Dr. Summers of Omaha, indicating the line of attachment to the lateral peritoneal wall. It has also seemed

to me that as a rule this membrane is supportive and that division of it would only tend to let the cecum and ascending colon sag lower.

While I think that in certain cases it may offer an obstruction to the free passage of contents along the ascending colon, yet that in most cases it is really advantageous in supporting the cecum that has slipped from the fossa and is gradually sinking to a lower level, and dependent largely upon the support given by this membrane, which is, as a rule, thicker and stronger in cases of ptosis of cecum and ascending colon, than where the cecum occupies the normal position on the shelf, as so well described by Dr. Coffey of Portland.

Now we come to the surgical treatment of these cases. I am well aware that opinions differ as to the treatment of these cases of visceroptosis, but I think that we can all agree that in many of these cases who have gone through long years of semi-invalidism, who have suffered for years with vague and rather indefinite pains in the abdomen when on the feet, who, in spite of medical treatment, have had a growing constipation, and have arrived at a point where the only bowel movement they have is obtained by cathartics or enemata; whose complexion is bronzed or muddy, and suffer continually with headaches; in whom the bismuth meal by radiography shows a moderate gastroptosis, but with about normal motile function, but after twenty-four hours the cecum is still filled with the bismuth, the cecum resting in the pelvis, and the ascending colon of unusual length, the transverse colon angulated and resting in the pelvis, may I ask, what is the indication for treatment now? And is not some surgical treatment for the relief of the intestinal stasis indicated?

Our patient's invalidism is due not to the visceral ptosis, for she would get along very well if it was not for the toxemia due to the intestinal stasis that is poisoning her whole system. And the indication in the treatment is the relief of the in-

testinal stasis, either through suspension or anastomosis.

I am one of those who as yet are not quite ready to adopt the Lane operation, unless it be in very extreme cases; consequently, I have been trying the more simple and less dangerous operations, all with a view of relieving the intestinal stasis, and in conclusion want to report the following cases:

Group 1.—Plication and fixation of the cecum. These cases were all cases of cecum mobile, and present much the same picture and much the same symptoms. They were all constipated. They all complained of pain referred to the right side of the abdomen. They were all tender over the cecum. None of them had had a typical attack of appendicitis. All of this group has been benefited, but I can not say that the improvement has been satisfactory. The relief from the stasis has not been such as to satisfy me.

Group II.—Coffey Suspension: These cases were cases of pronounced midline ptosis, and the hammock operation proposed by Dr. Coffey was done, the great omentum being sutured to the anterior parietal wall at or just above the umbilicus, with the idea of taking the angle out of the transverse colon, and at the same time, supporting the stomach. In all of these cases the condition has been improved, but cannot say that the result has been satisfactory. While the stomach function has been improved, yet I have found it necessary to use laxatives to overcome the constipation.

Group three is cases in which I have done ceco-sigmoidostomy, an operation which we would think should overcome the stasis, but in none of my cases has the relief from the constipation been as marked as we expected. You would think when you cut the bottom out of the cecum and anastomose it with the sigmoid, that the contents of the cecum would pass freely into the sigmoid, but our X-Ray plates do not show this to be true.

In fact, but a small part of the contents of the cecum where bismuth is used

passes into the sigmoid, the bulk of the meal passing on up hill over the hepatic flexure, the normal route. This undoubtedly is due to the peristaltic action, carrying the contents along the normal course, and beginning at the lower portion of the cecum lifts the contents and probably closes our anastomotic opening.

Now I am trying an anastomosis between the ileum and the sigmoid which I am now inclined to think will give better results and the relief of the intestinal stasis.

GROUP I—FIXATION OF CECUM.

Malachy C—S., 24, Beattie, Kan., farmer. Complaint, pain in belly. Family history: F. L., M. D., 40 pneumonia; 3 B. L. G. H., 1 B. D. Infancy; 3 S. L. G. H. 1 S. D. Infancy. Previous history: Pneumonia, typhoid, mumps, chickenpox; no venereal. Personal history: negative.

Present history: Started about five years ago, with attacks of pain in belly coming on at irregular intervals. Painful attacks usually last only from 2 to 11 hours. Pain is cramp-like and colicky, and radiates across abdomen from right to left, never seems to localize at any one place, but thinks it is worse on right side. Severe enough at times to double him up. Vomited but once and attributes it to medicine. Appetite fair; bowels constipated as a rule; no headaches. Blood: W. B. C. 11000 P 62 S 32 L 6.

Diagnosis: Chronic Appendicitis—mobile cecum. Operated: 11-6-13.

Findings: a. Cecum mobile; b. Lane's kink; c. Genito-mesenteric fold present; d. Appendix post-cecal and slightly oedematous; e. Janesco's fold rudimentary.

Proceedings: a. Appendectomy; b. Fixation of cecum and ascending colon to parietal wall; c. Lane's kink relieved by severing genito-mesenteric fold.

Lizzie J—M., 38, K. C. K. Housekeeper. Complaint—Pain in abdomen, left side mostly. Family history: F. D. 55 pneumonia. M. L. 74 G. H., 6 B. L. & W., 6 S. L. & W. Previous history: Usual children's diseases. Pneumonia three years ago, typhoid seven years ago. Personal his-

tory: Pubescent 12, regular until 20, and always irregular since; always painful. Has two children living and well (19-10), and one dead accidental at 2 yrs. Two labors normal, one forceps. Puerperia normal. Two miscarriages 5 mo's about eleven years ago.

Present history: Started about 2 years ago; pains in abdomen, mostly in left side. Pain is a sharp pain, and constant. Not relieved by lying down. Headache at times. Bowels constipated, appetite fair.

Vaginal examination: Retroflexed uterus. Urine—negative. Diagnosis: Visceroptosis—Retroflexion. Operated. 9-2-13.

Findings: a. Well-marked bloodless fold of treves. b. Genitomesenteric fold and divided below into two layers, one of which passes over right tube and ovary, and the other into pelvic wall. c. Jamesco's fold over cecum and part of ascending colon. d. Uterus retroflexed, fundus resting on rectum. e. Cecum mobile, and passing down into pelvis; rests on bladder. f. Right border of omentum wrapped around cecum, and adherent anteriorly.

Proceedings: a. Appendectomy. b. Ventral suspension of uterus. c. Fixation of cecum.

Mabel B.—S., 38, Linden, Kan. Telephone operator. Complaint—Pain and dragging in lower abdomen, worse on left side; backache, tires easily. Family history: negative. Previous history: Measles; pertussis; tonsillitis at times; chickenpox; peritonitis (?) 4 yrs. ago. Personal history: Pubescent 14, regular 5 days 4 weeks; painful always; last period one week ago.

Present history: Dates back indefinitely, but has been getting worse for the last four years. Has pain in left lower abdomen and on right side posterior. Pain somewhat increased during menses. Dragging feeling in pelvis; tires easily when on feet; feels much better when lying down, and feels good in morning when she first gets up. Vomits occasionally. Appetite good. Bowels very constipated. Has lost no weight. Some distress in stom-

ach region all the time. Dizzy at times. Headache severe often. No cough nor ringing in ears. Some dyspnea on exertion. Urinates once every night. Some burning at times.

Diagnosis: Visceroptosis. Retroversion of uterus. Urine examination negative. Operated: 10-20-13.

Findings: a. Retroverted uterus. b. Four small fibroids on fundus of uterus. c. Janesco's membrane present, extending over cecum, appendix, and out to ileum; not much over ascending colon.

Proceedings: a. Excision of fibroids. b. Proximal ends of tubes resected. c. Ventral suspension of uterus. d. Appendectomy. e. Plication of cecum. f. Fixation of cecum.

Cora C.—Complaint—Pain in right side of abdomen for last two years; some pain in stomach for same length of time; worse after eating; was jaundiced at times. Bowels constipated. Appetite fair. Family history: Negative. Previous history: Negative. Personal history: Pubescent 14, regular for last year only; not painful; flow moderate. Three children living; one miscarriage, two and a half months; accidental. Urine: 1023 acid—alb. trace—Sug. Pus.

Blood: Reds 4,200,000; whites, 8,800; Hgh. 80—90—Tallquist, Polly, 77; Small, 16; Large, 7.

Diagnosis: Moderate retroversion. Right nephroptosis. Boloptosis. Operated: 8-28-13.

Findings: a. Moderately mobile cecum. b. Appendix post-cecal and almost obliterated. c. Moderate gastroptosis. d. Duodenum considerably dilated. e. Ascending colon, cecum and appendix covered by pericolic membrane. f. Moderate right nephroptosis. g. Uterus retroverted.

Proceedings: a. Ventral suspension of uterus by shortening round ligaments. b. Appendectomy. c. Fixation of cecum and ascending colon to parietal wall.

Etta D.—19 M. Housekeeper, Kansas City, Mo. Complaint—Pain in lower abdomen; both sides; constipation; nervousness. Family history: F. L. 57, rheuma-

tism: M. L. 53 G. H. 4 S. L. G. H. 1 s. d. Infancy. 2 B. L. G. H., 3 B. D. 2 in infancy, 1 suicide. Previous history: Measles, scarlet fever, mumps. Personal history: Pubescent 14, always irregular; some slight increase in pain during flow. One child living, 10 months, in good health. One miscarriage at 2 months. Labor and puerperia normal. Has had leukorrhea for last 4 years.

Present history: Started 3 years ago and she attributes it to a fall she had at this time. Since the fall has had pain in lower abdomen, both sides about equal. Pain slightly increased during flow. Tires easily when on feet, and feels better when lying down. Is very nervous at times(?) Never vomits. Appetite fair; bowels constipated; headache at times, backache considerable; has lost 8 pounds in last six months. Respiratory symptoms negative; Cardiac symptoms negative; urinary symptoms negative. Blood: 7000 white, P. 63—S. 32—L. 5.

Diagnosis: Gastro-colo-ptosis—moderate retroversion. Operated: 8-8-13.

Findings: a. Uterus retroverted. b. Cecum very dilated, mobile. c. appendix post-cecal. d. Pericolic membrane around ascending colon, extending from Hepatic flexure to caput cecum.

Proceedings: a. Ventral suspension of uterus by shortening round ligaments. b. Appendectomy. c. Fixation of cecum and ascending colon to parietal wall.

Clara S.—24, K. C., K. Complaint—Pain in abdomen. Family history: F. L. 53 G. H., M. L. 45 G. H. 1 B. L. & W., 1 S. L. & W. Previous history: Measles, mumps, chicken-pox. Typhoid 2 years ago. Personal history: Pubescent 15, regular. Pain in abdomen not increased at menses.

Present history: Started one year ago with sharp, severe pain in right upper quadrant of abdomen, radiating upwards. At time of the attack she vomited once. Has had no more distinct attacks of pain like this, but has had a constant pain in right side ever since. Some tenderness in right upper quadrant. About three months ago, vomited everytime she ate for about

4 weeks. Was never jaundiced. Appetite good at present. Bowels constipated. No headaches. Respiratory findings negative; cardiac findings negative; urinary findings negative. Blood: W. B. C. 6000 H. B. 95 P. 52 S. 40 L. 8.

Diagnosis: General Visceroptosis. Operated: 7-14-13.

Findings: a. Cecum mobile. b. Appendix post-cecal. c. Stomach-greater curve below umbilicus. d. Transverse colon in pelvis. e. Right kidney at brim of pelvis. f. Pericolic membrane well marked over ascending colon from Hepatic flexure to cecum, but not covering cecum. Head of cecum in pelvis.

Proceedings: a. Appendectomy. b. Fixation of cecum.

GROUP II—COFFEY SUSPENSION.

Mary K.—S., 20, Housekeeper. Complaint—Pain in abdomen. Family history: negative. Previous history: Usual children's diseases, never been sick otherwise. Personal history: Pubescent 13; regular, large flow; always accompanied by pain.

Present history: Started about one year ago with pains in lower abdomen, on both sides. Some pain over appendix area, and at times a draggy pain in right upper quadrant of abdomen. Pain decreased on lying down. Pains somewhat increased at monthly periods. Appetite not good. No vomiting. Bowels constipated. No loss of weight. No jaundice. Cardiac system negative; respiratory system negative; urinary system negative. Right kidney mobile. Urinary Exam: 1030—acid, alb.—sug.—, bile—, indican * * * Microscopic Examination negative.

Diagnosis: Visceroptosis. Operated: 9-22-13.

Findings: a. Cecum mobile (in pelvis). b. Appendix post-cecal. c. Transverse colon in pelvis. d. Stomach (greater curve) slightly below umbilicus. e. Right kidney ptosed. f. Janesco's fold present over entire cecum.

Proceedings: a. Appendectomy. b. Coffey Suspension of stomach. c. Fixation of cecum to parietal wall.

Frank H.—M., 37, Nowata, Okla. Com-

plaint—Pain in abdomen—epigastric. Family history: F. D. 76 Senility. M. D. 55 Typhoid. 1 B. L. & W. 1 S. L. & W. Four children L. & W. (10-3). Previous history: Measles, chicken-pox, mumps, typhoid at 13. No venereal diseases. Personal history: No tobacco; alcoholics moderately.

Present history: Dates back about 7 years, when began to have pain in epigastrium. Is periodic, being free from it a week or so at a time. Pain at times sharp, radiating downward and to the right, and at times has pain in back between shoulders. At times the pain is relieved by eating, and again eating will aggravate it. Quality of food does not influence pain. Belches at times, and when he does belch, the pain is relieved. No vomiting; appetite fair; bowels constipated. Has lost about ten pounds in weight. No headaches. Dizziness at times, shortness of breath on exertion; no cough; no nocturnal urination.

Stomach analysis: Free, 480. Total 60, no blood; no retention. Urine negative. Operated: 10-14-13.

Findings: a. Cecum mobile. b. Transverse colon in pelvis. c. Greater curve of stomach just below umbilicus. d. Liver, lower edge, at level of umbilicus. e. Appendix post-cecal. f. Janesco's membrane present over ascending colon. g. Greater omentum rudimentary.

Proceedings: a. Fixation of ascending colon and cecum to parietal wall. b. Coffey Suspension of transverse colon. c. Appendectomy.

Mary B.—S., 43. Housekeeper. Complaint—Constipation (obstinate). Family history: negative. Previous history: Negative. Personal history: Always has been regular, but was operated 4 months ago for Hemorrhoids, and has not menstruated since. Present history: Dates back about fifteen years, when was troubled with gas after eating, belching and pyrosis; and constipation. Did not have any pain at that time. At present, has a kind of dull hurting over epigastrium, and left upper quadrant, with at times a sharp

pain in these regions. Says she notices when she presses over these regions, gurgling results. Tires easily when on feet, and has a dragging in lower abdomen and pelvis. Appetite not good, bowels obstinately constipated, must take a physic. Headaches severe one to three times a week. Backache at times; some dizziness. Has lost ten pounds in last four months. Two years ago, started lavage and kept up for 4 weeks; no improvement. Stomach shows a retention. Free Hcl. 210. Total 330. No blood; some mucus.

Diagnosis: Visceroptosis. Operated: 1-22-14. Findings: All organs ptosed. Proceedings: Coffey Suspension.

GROUP III—CECO-SIGMOIDOSTOMY.

Eva H.—M., 28. H'sk'pr. Higginsville, Mo. Complaint—Pain in right lower abdomen. Family history: F. L. 69, G. H., M. L. 65, G. H., 2 B. L. & W. 1 B. D. Infancy. 5 S L & W., 2 S. D. Infancy. Previous history: Measles when a child, otherwise negative.

Personal history: Pubescent at thirteen, regular, painful at times. In Nov. had a miscarriage at 4 months, and flowed almost steadily until March 1st. Flow had bad odor, and flow increased when on feet. Last flow started March 30th, and normal. Three children living, 9, 7, 5. 1 D. infancy (Pertussis), two miscarriages (3 months—4 months) cause unknown.

Present History: Dates back to birth of last child, about 3 years ago, when she noticed some pains in abdomen at first menstruation. Pain was in lower abdomen and worse in right side. Pain is worse when on her feet, or when she gets up after lying, everything in her abdomen seems to fall. When lying on right side, pain is worse on left, and vice versa. Some pain in epigastrium, especially when first gets up in the morning. Three weeks ago, was in bed for one week, on account of pain in her right side. Had some chilly sensations for first three days. Called a Dr. and he put an ice bag on side. Did not vomit, but felt nauseated. No appetite. Bowels constipated for last

three years. Has to take a physic to move them. Has severe headaches often. Backache at times. Some shortness of breath on exertion. Ankles swell at times. No cough. Has lost about forty-five pounds in last seven years. Vaginal examination showed slight retroversion.

Diagnosis: Gastro-coloptosia. Moderate retroversion. Visceroptosis; mobile caecum. Abdomen opened median incision.

Findings: a. Caecum very large (double barrel) and mobile, extending into pelvis, where it rested on the uterus. b. Transverse colon, about 4 inches below umbilicus, while lying down. c. Stomach quite large and ptosed. d. Jackson's membrane quite marked over caecum and ascending colon. e. Genito mesenteric fold from head of caecum extending on to Broad Lig., and ovary on right side. f. Uterus retroflexed. Uterine adnexa O. K. Operation: a. Appendectomy. b. Ceco-sigmoidostomy. Genito-mesenteric fold divided.

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Gleanings From Principal European Eye and Ear Clinics.

BY H. C. MARKHAM, A. B. M. D.
Parsons, Kan.

Read Before Southeast Kansas Medical Society, Oct. 1914.

When the secretary of the Southeastern Kansas Medical Society wrote me, requesting that I read a paper before the society on my clinical experience in Europe this summer, I was in somewhat of a quandary as to the manner in which to present the subject. However, I have decided to present the different clinics as I visited them.

The first city was Paris, France: The institutions visited were The Rothschild Foundation for Ophthalmology, The Labroisiere Hospital and the Hotel Dieu. The Rothschild Foundation is devoted entirely to the treatment and care of the eye. It is thoroughly modern and completely equipped in every detail, handling upwards of 46,000 cases annually. Prof. Depuis De Temps, was the chief of the clinic. We

ing the pathology of the same. Two cases of special interest were noticed. The first was two cases of detachment of the retina each patient being hopelessly blind and in each case blindness being the result of lense extraction for high myopia. Dr. Fuchs stated that such an operation was absolutely unjustifiable and he had never known of any other result, if the patient lived long enough. His advice was never to operate them. The second was a case of pus in the anterior chamber of the right eye, on visiting the clinic the first day, the next day this eye was clear but the anterior chamber of the left eye was involved. Dr. Fuchs stated this was the only case of the kind he had ever observed.

Elliott trephine work in his clinics show 3 per cent of latent infection, but he states that it is the only operation to follow. Its the choice of all that we have. Much of this infection is probably due to the class of cases in the clinic and the poor circumstances under which they live.

The ear clinic of Dr. Neuman received our next attention as one of our party carried a letter of introduction from Dr. Whiting of New York. Dr. Neuman gave us mastoid and labyrinth work only. The first was in the anatomical laboratory where every well-known mastoid operation was demonstrated, then the labyrinth was given in detail. After this work we were taken to his private clinic and given an abundance of mastoid work. This doctor was quite taken with us, so much so that he presented us with a large photograph of himself with his autograph attached. Dr. Neuman's radical mastoid plastic flap is made with the periosteum dissected up from the site of operation and transplanted into the cavity, thus hastening repair.

The next ear clinic visited was Dr. Urbanschitt's, successor to Politzer. Many cases of lupus and sarcoma were shown in which the radium was giving excellent results but radium had been entirely discarded for treatment of carcinoma. Drs. Ruttin, Herzog and Beck gave a large amount of mastoid and lateral sinus

thrombosis work, some of the dissections being very radical, including the jugular to the torcular. All rare cases are prepared in wax in the natural tint. A large number of these were presented for our inspection. Dr. Hirsch of this clinic showed us his hypophysis work which is done entirely by the intra-nasal route and is very easily and quickly accomplished.

The third important clinic was the laryngological clinic of Prof. Chiari where we were shown many cases of completed laryngectomy, and pharyngectomy. Some of the patients were able to converse distinctly at a distance of 75 feet. All of this work was done under local anesthesia. Also sinus work on the antrum was done for us under local anesthesia. General anesthesia was used for frontal sinus work.

Dr. Selix's clinic was the first in Berlin to receive us. This is a very large clinic with seemingly an unlimited number of patients of every variety and from almost every country. We were given a very large operative clinic each morning with demonstrations of peculiar and interesting cases from the general clinic. Dr. West of this clinic demonstrated the intra-nasal lachrymal sac operation. A very satisfactory operation in all phlegmonous cases, giving marked and immediate results. Dr. Killian demonstrated his laryngoscopy with cauterization of some granulations. Also the hot air treatment of intumescent rhinitis as well as lupus and sarcoma cases under radium treatment, radium being discarded in this clinic in carcinoma cases.

Dr. Bruehle gave a large amount of mastoid work which is along an original line. The flap in his plastic being one of his own design with possibly the same object in view as Dr. Heine, but the cosmetic effect is not so good.

Dr. Max Halle gave a wonderful clinic in sinus work and cosmetic surgery. Noses were shortened, saddle back and Roman noses were made into the Grecian type. One case, a congenital syphilitic, was operated and a piece of the tibia was inserted producing a beautiful result. This work

is all intra-nasal. I asked a Dr. Ingersoll what difficulty, if any, did the Doctor have with these cases. He stated that he had seen one case of periostitis and it did not prove very troublesome. One patient was shown on which the nose had been straightened and shortened, the same patient now being in the clinic for a frontal sinus operation. His frontal sinus work is all done intra-nasally and requires only a few minutes of his time. The opening appeared to be entirely ample, so much so that there was no difficulty in obtaining a complete view of the interior. This work is under local anesthesia and the patient is permitted to walk home. Every step of this work is demonstrated clearly and if one does not see and understand, it is his own fault. The incision was made anterior to the middle turbinate down to the bone. The shell of bone is chiseled through until probe enters sinus. Then with an electric engine and bur this opening is made larger until sufficient room is provided. The interior is in full view and whatever work is required can be done very readily.

Dr. Sattler of Leipsic presented a large eye clinic, claiming it to be the largest clinic in Germany. He states he had done over 200 trephines for glaucoma without any secondary infection, which is quite favorable for the large number of cases reported. We were also shown a case of choked disk in which the brain tumor was on the opposite side. This patient was operated in Dr. Peyer's clinic and tumor demonstrated. The brain work is done in two operations and under local anesthesia as a rule, thus cutting the mortality rate in twain.

At Jena after the regular eye clinic, the general surgical clinic of Dr. Lexer was visited in which some extraordinary feats in plastic surgery and bone work were observed. Dr. Lexer is, without question, the peerless scalpel artist. Eyebrows, eyelashes, eyelids, mustaches, noses, lips and ears included most of his plastic work, which is done under local anesthesia. One young man was exhibited in the clinic for whom a knee joint had been constructed.

Dr. Lexer is a very rapid operator and a large volume of his work is done under local anesthesia.

Dr. Kummell of Heidelberg provided a very large clinic in sinus, mastoid, laryngological and plastic operations. The plastic work is along the line laid down by Lexer, the laryngological was after the line of Killian and for tuberculous cases. The sinus work was radical antrums, frontal, mastoids which were quite conservative and somewhat along the line of Nargel of Zurich, with ideas from Heath of London.

London offered more than we were able to see. It was impossible to take it all in. My observations were at Moorsfields, Guy's, West London, Royal London, London Hospital, Westminster, University and Middlesex Hospitals. A large line of work was offered with a very large amount of radical sinus and mastoid work. The eye work was usually at Moorfields in the morning where a great many sac operations were observed. The incision was made a little lower than Meller's incision and along the line of the lachrymal groove. This work is done under local anesthesia, hemorrhage being a negligible factor and in some cases none. The general line of operative work consisted of advancements, cataracts, iridectomies, trephines, synechiae, symblepharons and entropions.

Trephine cases were shown in which the field of vision had been very limited and cupping very pronounced who had acquired after a year 20-20 vision, with a field very much widened. Many trephine cases showed detachment of the choroid, but all re-attached in a short time and never giving any trouble.

Trachoma is generally treated by grattage and brassage followed later with CU S04 in glycerin.

At this point we decided to sail for America, owing to the possibility of war and the fact that we were in a foreign country.

—————R—————

The Microscope as an Essential to the Diagnosis, Prognosis and Treatment of Gonorrhea.

P. S. MITCHELL, M. D., Iola, Kan.

Read Before Kansas Medical Society, Wichita, May, 1914.

In observing the practice of medicine, I am forced to the conclusion, that more errors are made from laxity of effort, following in channels of least resistance and becoming creatures of habit, rather than the lack of scientific knowledge.

The physician, especially the busy general practitioner, becomes careless and indifferent in the every day hum-drum of his daily toil, to the extent that he feels so familiar with a given disease as to rely totally upon his intuition and power of outward observation. This pans out successfully, perhaps, in most instances, because the majority of acute ailments of the human body will recover, regardless of the doctor and his drugs, the osteopath and his massage or the Christian scientist and his incantations. Nothing, however, is more untrue, unscientific or unjust to the patient than such lax methods in the treatment of gonorrhea.

It is not the purpose of this paper to offer instructions in making smears, staining and examining for the Neisser coccus, because I am certain that every physician within my hearing has that knowledge in store. Neither am I presuming to tell this learned body of physicians anything yet unknown of the ravages and cure of the disease. I only desire to urge the putting in practice of what is known.

My observation teaches me that less than ten per cent of men in general practice, not mentioning the druggist, patent medicine fakir, osteopath and other cults, use the microscope in the routine handling of their cases of gonorrhea. This, if generally true, and I believe it is, is appalling. It places the disposition of this ravager of human life and despoiler of the home upon a basis of the haphazard guesswork, practiced by the self-denominated veterinary at the corner livery stable.

A few of my hearers may unfortunately

possess no microscope, others may own a beautiful outfit covered with a bell-jar, always neat and clean, ornamenting the most conspicuous place on the desk and seldom or never consulted, while the fortunate and successful few keep it at their right hand in every case. It is not the last to whom I am addressing these few words of admonition.

Ordinarily the patient calls upon his physician or some one who has attained some local reputation in the treatment of private diseases, complaining of a discharge. The patient desires to be told the diagnosis, how long it will take to be cured and how long he must abstain from sexual intercourse. The last item is most important to him as it is quite necessary to keep his wife or paramour in ignorance of his trouble.

The physician or druggist, as he may be, with an exalted mien of concentrated knowledge, looks at the discharge with his "well practiced eye," pronouncing it gonorrhea.

After the "altogether unimportant" financial arrangements have been made, the patient enters upon identically the same treatment as his friend, who recommended the physician, did a few weeks before.

The diagnosis may or may not be correct, because the best trained clinician in the most extensive venereal practice in the world would not be able to tell positively from mere observation. It goes without saying, however, that the guess is correct. Assuming that it is correct, a few doctors have learned from experience (not knowing why) that irritant flushings at some time have done harm. These men prescribe their specific internal treatment, useless as it is harmless, in every case. With hygienic and temperate care, they are more fortunate with their cases than the early flushers. Then the other class institute the antiseptic and astringent flushings with the onset of the disease. These are the cases that are usually prolonged. They improve and relapse till they become disgusted, shifting about from

one doctor to another for months and even years till finally the disease spends itself. One physician will tell the patient he will infect his paramour, while another will deny it, so it is up to him to experiment and find out. All this is the result of personal opinion, with no attempt at definite findings.

Assuming the guessed diagnosis is incorrect, the patient may recover in three or four days with a sudden abortion of the disease, which was due to some other infection, innocently contracted. Frequently before the mistake is discovered and corrected, it has wrought havoc in a peaceful home, with possibly even a life paying the penalty. Juries have been known to adjudge guilty innocent parties upon evidence of a doctor's mistaken opinion. In one case, with which I am familiar, the judgment of a penitentiary sentence or freedom hung upon the evidence given by the microscope against that given as the personal opinion of a physician. The microscopic evidence prevailed in clearing the man, which was a very fortunate decision as later facts developed. In these days of critical investigation, the obtaining of a marriage license, life insurance or even some highly desired commercial position may depend upon the former freedom from this disease.

Assuming the discharge to be light colored, viscid and painless, the physician or druggist again with his well practiced eye examines and assures the patient that the trouble is harmless, merely a strain or catarrh. The patient ignorantly passes it on to his wife or others, from which innocent lives may be sacrificed.

When these opinionated diagnoses are incorrect the burden of discomfort does not always fall upon the innocently infected parties alone, but the physician not infrequently comes in for his share of embarrassment.

It is now well authenticated that other than the Neisser coccus will produce a purulent urethritis. Other infections usually produce a disease of lesser duration, as they do not penetrate between and

beneath the epithelia as do the Neisser cocci. In two instances of urethral, purulent discharge, strongly resembling acute gonorrhea, did I find after repeated smears to be other than the Neisser infection.

Therefore, every case coming to you for counsel should never be touched or advised relative to diagnosis or prognosis till one or more smears are made and examined. If a diagnosis of gonorrhea is once assured, advice on prevention of spreading the disease should be given. Simple advice of temperance and abstinence are of no value, without detailing to the patient how excesses so materially enhance penetration of cocci into the deeper structures, where blood vessels and lymphatics pick it up and carry it to foreign parts. A microscopical knowledge of the invasion of the gonococcus of the urethra fortifies the doctor in giving this advice to his patient as nothing else can.

If the patient consults the physician in the very early stage of the attack, the germs may be seen in small numbers on the margin of the epithelial cells and no pus cells will have yet appeared. The physician may attempt to abort the disease at this period if he elects so to do. This is done with strong antiseptic and escharotic treatment which frequently results in failure, but sometimes will end in the complete cessation of symptoms and cure of the disease.

If the microscope reveals cocci in profusion, covering the epithelial cell, and pus cells, loaded with cocci appearing, he knows that epithelial cells have been sufficiently acted upon as to slough and the germs have invaded the tissue beneath. Here the cocci have incited a leucocytosis, the leucocytes, probably by a chemical attraction, pick up the germs and carry them away as pus. He knows now the stage of aborting has passed, and he may inform his patient that it will probably take four to twelve weeks to work a cure.

With epithelia denuded, cocci invading the deeper structures, leucocytes burdened with germs crowding up for elimination, while myriads of others are being carted

away through lymphatic channels to glandular septic basins, strong antiseptic flushings seem unwise. Opinions may differ as to methods, but the principle involved must always be the same in treatment at this stage. The urine should be made bland and non-irritating and the urethra clean and well drained. Antiseptics will no more cure than they would small pox if applied to the skin.

Smears should be made from day to day and as the florid period subsides, epithelial cells will have entirely disappeared and cocci are leaving the pus cells. Soon the epithelial cells commence to reappear which is the best possible omen.

Cocci now leave the pus cell entirely and a few are seen floating free in the serum. They are now said to be inert and my observation has taught me that that is the case, although it is good judgment to insist on your patient practicing total abstinence till pus cells and cocci entirely disappear with no tendency to recur. This is for the benefit of both the party of the first and second part. When the epithelial cells begin to reappear, the patient may be informed that the beginning of the end of his troubles are at hand, providing he elects to continue to avoid indiscretions.

However, should the pus cells laden with cocci continue to present themselves in quantities and the epithelial cells be slow in reappearing, the physician knows that his patient is not recovering as he should and that some obstacle is in the way that should be removed. This is usually some indiscretion practiced on the part of the patient, which is frequently obscured. At other times, cocci laden pus cells are found to disappear and reappear which shows a sacking up of pus that drains by spells, possibly from the seminal vesicles. A persistent continuation of pus cells with cocci and numbers of epithelial cells points out that there is a denuded area that refuses to cover with epithelial cells.

Thus, the microscopical findings must be so closely allied to the determination of the lesion that it seems impossible to me to even attempt to proceed with the diagnosis

and treatment or even have a thought of the outcome.

Nothing is more simple than taking a smear, drying, staining and examining under high power, which is sufficient for all practical purposes with this germ. In no disease is the examination less complex and in none can it count for more. True there are obscure cases that will baffle the microscope, but even negative results are often of value. Some cases may be so puzzling as to demand special differentiating stains or culture which will require an expert and do not come within the province of this paper. It is my desire only to speak of and urge the simple methods, from which no one can be excused.

Recently an investigator of our own university collected data relative to the exact results in diagnosis in the best hospitals of the country. These diagnoses were made by the best clinicians, aided by laboratory experts of known ability. Post-mortem findings were taken as the court of final judgment. The results showed that less than half the diagnoses were correct. Allowing that the hospital is the last resort for extreme cases the findings are yet astounding. Then the errors in diagnosis in general practice, where even simple laboratory methods are unused, must certainly be shocking.

If nature depended for a cure upon the correct diagnosis of many family physicians what would be the result? If the public knew what little worth there was in the mere opinion of their usual family health adviser, what would be the outcome? It is well that nature can do so much unaided.

With short post courses so accessible there is little excuse for physicians not learning at least the academic laboratory methods and applying them to their use. We cannot all expect to be experts, but can learn to use the simple necessary means. If a post course is out of the question, many good and reliable works on the simple laboratory methods are now published, which will suffice for all practical purposes.

When we have means of diagnosis as adequate to our purpose, so readily accessible and with such little effort attained, it is little less than criminal not to avail ourselves of the knowledge so essential to our patient's good and our own success. The neglect of the use of the microscope, or other definite scientific means at our disposal, trains us to be hap-hazard and careless in our methods; it leaves us open to distrust and ridicule from our colleagues; it furnishes opportunities for malpractice suits; it makes the diagnosis uncertain, the treatment insecure and unscientific and the prognosis an unknown quantity.

I may seem to be severely critical and may not even do the profession justice, but I feel certain that we grow careless in our work and often fail where we should not. Value received, should be given in medicine the same as in a horse trade. Our errors are magnified many times in number and size by members of healing cults impressing many of the laity that our diagnoses are all based on guess work. We should not criticize these cults for their ignorance in pathology and then fail to put into practice the knowledge so essential which we possess. The credulity of humanity, with her superstitious confidence in the unusual and unreal, sometimes makes us wonder if it is all worth while, but effort for right should ever prevail, where jeopardy of health, life and happiness is at stake.

I wish that these few words might aid in a campaign toward driving the druggist, patent medicine fakir, and all other unfit "healers," out of the handling of this disease. Secrecy on the part of the patient, advertising by the doctor and not results obtained are the creators of their popularity. From a financial standpoint they are an asset to the painstaking physician, but it makes it pretty severe on the patient.

Methods of reform are beneficial and prophylaxis should be cultivated, but we'll probably have the scourge with us always. Its ravages are so extensive and serious,

that no effort toward amelioration should be lost sight of or allowed to go by default. None but the competent and painstaking physician who uses modern scientific methods, should shoulder the responsibility of its treatment. Each case should demand the same serious care, practiced by the surgeon in entering the abdomen. Health, happiness and even life may depend upon it.

—————R—————

Philippine Civil Service Examinations.

The United States Civil Service Commission announces an open examination for bacteriologist and pathologist, for specialist in mental and nervous diseases and for medical inspector and surgeon. The examination will be held March 2nd. These examinations are only open to males. The salary of a bacteriologist and pathologist is from \$2,000 to \$2,500, that of medical inspector and surgeon is \$3,000 and the salary of a specialist in mental and nervous diseases is \$3,500. These appointments are for service in the Philippines. Blanks and further information may be obtained by writing the United States Civil Service Commission at Washington.

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Chaparro Amargosa in the Treatment of Amebic Dysentery.

P. I. Nixon, San Antonio, Tex. (*Journal A. M. A.*, May 16, 1914) describes the chaparro amargosa bush and its medicinal history. His interest was stimulated by the suggestion and experiences of Dr. J. W. Nixon of Gonzales, Tex. He describes treatment and reports ten cases. All his patients were cured by the treatment, and so far as can be determined there has been no recurrence. In only one case was a living ameba found in the stools after treatment was begun. He says: "Experimental data prove the amebicidal action of chaparro amargosa no less surely than do the clinical results, the drug undoubtedly having an elective affinity for the protoplasm of *Entamoeba histolytica*."

SOCIETY NOTES.

THE JOURNAL of The Kansas Medical Society

W. E. McVEY, M.D. - - - - Editor

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The Bill.

At the present writing it is impossible to say what the fate of the medical bill will be. The bill prepared by the Commission was introduced by Senator Huffman, but after it had been introduced he found that some changes were required. He therefore prepared and introduced a substitute, a copy of which appears in this issue of the Journal.

It will be noticed that the required "four years of eight months each" does not apply to the osteopaths until 1920. Although the representatives of the osteopaths agreed with the Commission on the four-year requirement, after the bill was introduced they demanded a change in that requirement. In view of the fact that the osteopathic law now in force requires a four-year course of study at this time it is hard to justify their contention on this point.

It was also found that in order to get any showing with the bill it was necessary to add a clause exempting the christian scientists.

The committee to which the bill was referred, made an unfavorable report, but Senator Huffman succeeded in getting a

resolution through the Senate to put it on the calendar. While this does not promise anything definite it does give us a fighting chance. According to our last report the committee in the House has not yet passed on our bill. We understand it has been introduced in the House as well as the Senate, but it will very likely come up in the Senate first, where it is No. 150.

Some personal correspondence with senators and representatives might have a favorable influence at this time. It would be worth while for every physician in the state to write to his representative and senator, urging their support for Senate Bill 150.

—R—

Recalled.

We quote the following from our introductory editorial which appeared in the May number of the Journal.

"There are many topics of interest to the physicians of Kansas besides those of a purely scientific nature. It is the province of a state journal to discuss these topics. It is not enough that the editor should express his individual opinions on such subjects. The Journal should be the forum in which the opinions of all may be made known.

Please remember that The Journal belongs to you and, when you find anything in its columns that does not please you, do not hesitate to write out your criticism and send it to the editor. The columns of The Journal are open to you at all times for the full expression of your views upon any subject of interest to the profession."

A writer who is capable of presenting, with equal fairness, all sides of any subject of vital interest to his readers must himself be wholly indifferent. If more than one view of such a subject is possible, then there must always be those among his readers who will not agree with the opinions he sets forth. A subject upon which all are unanimously agreed is rarely a profitable one for discussion.

The official organ of such an association as ours is presumed to represent the consensus of opinion of its members, but it

can do so only to the extent that they are willing to use its pages for the expression of their views.

With reference to those subjects about which there is likely to be considerable difference of opinion, the editor of such a publication as this has two courses of procedure open to him. He may ignore the subject entirely, or he may present it from his own point of view, trust to those who do not agree with him to present the other side. If he follows the first course the publication becomes of little practical value to the organization it represent. If he follows the second course and those, whose point of view differs from his, fail to present their opinions he is most likely to place the publication in an attitude not in accord with the sentiments of the profession it represents.

—R—

The Anti-Narcotic Act.

The Harrison anti-narcotic bill was passed by the House on December 10, and was signed by the President. It goes into effect March 1st. This law is in reality a revenue measure and affects druggists and physicians everywhere. We quote a synopsis of the law from the Bulletin of Pharmacy.

"1. The bill covers opium, coca leaves, and any compound, manufacture, salt, derivative or preparation thereof. Exemption is provided for preparations in each ounce of which there is not more than 2 grains of opium, $\frac{1}{4}$ grain of morphine, $\frac{1}{8}$ grain of heroin, 1 grain of codeine, or salts or derivatives of any of these. Exemption is also provided for liniments, ointments or other preparations legitimately prepared for external use only, unless they contain cocaine.

"2. Every dealer in or dispenser of these narcotics must register with the collector of internal revenue in his district and must pay a special tax of \$1.00 per year. This includes physicians, dentists and veterinarians as well as retail druggists, wholesale druggists, manufacturing druggists, importers or anybody else who has occasion to handle or dispense nar-

cotics. *Mere possession of any of the narcotics involved, if the possessor be not registered, will be deemed evidence of a violation of the law.*

"3. No one may order narcotics except he write the order in duplicate on blanks provided by the collectors of internal revenue. The buyer and the seller shall each preserve his copy of the order, and it shall be open to inspection by the proper officers of the government, and also by the state or municipal authorities charged with the enforcement of local anti-narcotic laws.

"4. These blanks shall bear the name of the registered dealer who buys them of the Internal Revenue Department, and an unregistered dealer who uses them will violate the law.

"5. Narcotics may not be sold or dispensed by *any one* except on orders filled out in this manner, and received from registered persons. The only exceptions are that a registered physician, dentist or veterinarian may administer the narcotics to legitimate patients, and that a registered retail druggist may fill the prescriptions of registered physicians, dentists or veterinarians. All such prescriptions must be dated and signed by the authors of them, and must be preserved by the dispensers for two years.

"6. Every dealer, whenever required to do so by the local collector of the district, *must hand in a record of all purchases made by him during a specified period.*

"7. The penalty for violation of the act is not more than \$2,000, or imprisonment for not more than five years, or both, in the discretion of the court."

According to this interpretation of the bill every physician must register with the collector of internal revenue of the district in which he lives and pay a tax of \$1.00 per year. No druggist is permitted to fill a prescription for narcotic drugs issued by a physician who is not registered under the act.

Special blank forms for orders, which must be obtained from the collectors of internal revenue, are required for drug-

gists, but whether special blanks for prescriptions are required seems to be a little uncertain. At any rate it would appear that the physician who writes a prescription for narcotic drugs would be safe in preserving a copy of each such prescription on file for at least two years.

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The Public Health Service.

The changes in the attitude of the people of Kansas toward public health matters, the growing appreciation of the efficacy of preventive measures against disease, can best be shown by a comparison of the expenditures made during the ten years ending with 1912.

In 1903 the Live Stock Sanitary Commission spent \$17,342.55 and the Board of Health spent \$2,681.69. In 1907 the Live Stock Sanitary Commission spent \$6,099.11 and the Board of Health \$7,444.40. In 1908 the Live Stock Sanitary Commission spent \$10,116.68 and the Board of Health spent \$18,763.66. In 1912 the Live Stock Sanitary Commission spent \$12,543.52 and the Board of Health, \$40,773.71.

The assertion has frequently been made, based upon the comparative expenditures for the protection of live stock and the protection of the people against disease, that the people of Kansas considered the health of their livestock of more importance than their own health. From these same figures one might conclude that the appreciation of preventive measures for the protection of the people has increased fifteen fold in ten years.

However, the assumption, upon the basis of such figures, or upon any other basis, that the people of Kansas have at any time been more considerate of their live stock than of themselves, is not justified. For these figures show, more plainly than can be shown in any other way, how ready has been the response to the demands made by the Board of Health.

As the Board of Health has increased in efficiency and shown to the people the value of sanitary regulations the people have responded with the needed financial support. It is no insignificant fact that in

four years (1906-1910) the expenditures of the Board of Health increased from \$4,100 to more than \$41,000. But it means that during that time the public health service in this and in other states had assumed an importance not to be carelessly ignored by the people. Its far-reaching effects had been demonstrated. The efficacy of the hygienic measures proposed was no longer a matter of experiment and speculation and the people were ready to accept whatever benefits might be offered.

That the state of Kansas, in 1903, expended a much larger sum for the protection of its live stock than for the protection of its people, was due to the fact that the efficacy of quarantine and sanitary regulations against diseases in live stock had been convincingly proven, while the utterly inadequate methods of the state's public health service in those days were rarely able to show results of sufficient magnitude to deserve general recognition. In fact the office of the Board of Health, in those days, was barely more than a registry office, where some pretense was made to receive and file birth and death certificates and the principle duty of the secretary was to prepare a voluminous annual report. The duties of his official position in no manner interfered with any amount of private practice he might be fortunate enough to have. The people, however, had begun to learn something of the possibilities of a real public health service. Something had been accomplished in the protection of live stock, but the remarkable results of the government's health campaign in Cuba and the still more remarkable showing in the canal zone was more effective in preparing the way for greater developments in public health work.

That the appreciation of the efficacy of all kinds of preventive measures has grown with the perfection and systematization of those measures is clearly shown by the expenditures for this purpose from year to year. In 1903 the largest expenditures along this line were for the protection of live stock, but in 1908 the expenditures for

the protection of the people exceeded that for live stock and in 1912 were more than three times as large. In 1908 the Entomological Commission expended \$500 for the protection of agricultural and horticultural interests and in 1912 the expenditures in this line of work had increased to \$8,990.42. In other words the general principles of prevention have been adopted as fast as the merits of these principles have been proven, first in the prevention of disease in live stock, next in the prevention of diseases in human beings and finally the same principles have been applied for the protection of trees and plants.

It is unnecessary to say that this work is yet in its infancy, but we need have no fear that the people of Kansas will not be ready and willing to adopt whatever new or more efficient methods the health authorities may find advisable for a more complete protection of life. With the further development of this work we may safely anticipate the ultimate eradication of all contagious diseases.

There is always more or less opposition to every attempt at legislation which appears to infringe the rights of the individual, but such opposition grows less important with a full realization of the benefits conferred upon the masses. It is usually those who are personally inconvenienced or whose personal interests are jeopardized that oppose quarantine regulations, that resist inspection laws and fight all legislation that attempts to control the sale of unhealthful food stuffs. The more strenuous the opposition from such sources the more apparent becomes the need for judiciously administered laws along these lines.

There can be no question but that an institution which has grown to such importance in the state's affairs, in so short a time, will continue to develop along the lines now proposed until every county in the state will have the benefit of an adequate health service department.

There may be some reason for leaving the administration of the most important of our public health laws to county of-

ficials but it is certainly not because of the greater efficiency of such a plan. Centralization of authority, in all public health matters, in the administrative officer of the Board of Health promises the only effective method by which uniform and definite results may be obtained. The plan of reconstruction suggested by the Board of Health, a synopsis of which appeared in the last number, is far in advance of the present system, but it also falls short of the ideal in a state public health department. There seems no good reason why this should not be in every sense a state department, with the seat of authority in the secretary of the Board of Health. The plan for making sanitary districts, with a thoroughly trained public health officer in each district, is a good one, but if these health officers were state officers, appointed by the Board of Health and paid by the state, they would be more directly responsible to the central office.

Local interests are too frequently in conflict with the enforcement of quarantine regulations and, at any rate, the control of epidemics, the prevention of contagious diseases and the enforcement of all sanitary laws are matters of state-wide rather than of local importance.

—R—

On Fee Splitting.

Being warned of the inadvisability of giving too much publicity to our personal views on such subjects as this we decided to interview some of the prominent members of the profession and publish their opinions on this matter of fee splitting. We first interviewed Doctor A. He has some reputation in neighboring counties and we asked him how prevalent he thought the habit of fee splitting really was. He thoughtfully clipped the end of a cigar, rolled it in his mouth, lighted it and said:

"The medical profession and the magazines and newspapers have united in a great campaign to educate the people along medical lines. Haven't you noticed the results? It is really wonderful how much knowledge of diseases and the treatment

of diseases the people have acquired in the last few years. Every one in these days knows 'what to do till the doctor comes.'

"A few days ago I stopped at a house where there were a number of people, among whom was a young married woman with a youngster, some two years old. This youngster was the topic of most of the young woman's conversation, but finally, having for a time exhausted the subject, she was diverted to the recital of interesting incidents in the child raising experiences of her friends. Among the incidents related was one about the infant of her neighbor. This woman, it seems, allowed her baby to play with the safety pins while she made certain necessary changes in its toilet. On one occasion the child put one of the open pins in its mouth. The mother's frantic efforts to remove it were of no avail. 'Her husband was in the field so she grabbed up the baby and ran out to her husband, but just think what presence of mind she had. She held that child's head down all the time so the pin wouldn't go down any farther. Her husband got a horse and went for the doctor and she took the child back to the house, still holding its head down. I never would have thought of that. Would you? Well, the doctor came and looked in its throat, but the pin had gone down. And it was open, too. The doctor told them if it didn't pass out—through the bowels, you know—he would have to open the child's stomach. He told them what to feed it and she watched for the pin. About a week afterward it came, and—the most wonderful thing—it *was still open.*'"

We next visited Dr. B. and we asked him to what extent he thought the surgeons in Kansas City, Missouri, would benefit by the anti-fee-splitting bill now before the legislature. He looked thoughtful for a moment, brushed a few white hairs from his coat, put his feet on his desk and said:

"In my youthful days I was often frightened by the tales of witches and goblins and other weird manifestations of the wrath of the Almighty. Some of those old, devoutly religious, shouting sinners were

the biggest liars on earth. They could fake up the most wonderful tales of God's intervention to save their worthless selves from dire disaster, and of the dreadful punishments neted out to their enemies by unseen hands. Many new religious cults have come into existence since then, but their devotees are apparently blessed with the same vivid imaginations and the same disregard for truth. The falsity of their stories is perhaps more the result of ignorance than viciousness. In some cases the stories are not in themselves false, but either ignorantly or intentionally, a false impression is permitted to be made. A very remarkable Christian Science cure has recently been reported by a member of that cult, one, however, who resorts to medical practitioners when she is ailing. According to the story, Mrs. X has been a Christian Scientist for many years—has some reputation as a healer—but has herself never had any illness until a short time ago. Having never been ill she neglected to immunize herself with the proper dose of immunizing mental attitude and became paralysed on one side. She immediately began to treat herself according to the latest approved Christian Science methods for such cases and she succeeded in *keeping the paralysis from spreading to the other side.*"

Finally we called upon Dr. C. and we asked him if, in his opinion, there were very many physicians in Kansas who would so far forget the principles of ethics as to divide a fee with a fellow practitioner. Without any hesitation he replied:

"What was it you asked me about medical ethics? Yes, I am a strong advocate of medical ethics—for the other fellow. I have always found it a rather rare and high-priced commodity. I knew an old doctor, however, who needed no artificial rules of ethics. He would never do anything to hurt another's feelings if it could be avoided. I was once invited to accompany him on a consultation visit with a practitioner of the same neighborhood. I remember little in regard to the nature of

the case except that the patient's bladder was distended with urine and he was to be catheterized. The attending physician attempted to introduce the catheter—one of the silver pocket-case type—but he held it with the curve directed the wrong way and after many strenuous attempts was about to give up the job. The old doctor quietly said: *'Doctor suppose we turn the patient around, with his head the other way, it may go in easier.'*

—R—

Proposed Amendment to the Constitution

The following resolution was proposed by Dr. O. P. Davis, at the last meeting of the Council and after consideration the Council recommended the amendment. After being twice published in the Journal it may come up for action at the next meeting of the House of Delegates:

A resolution proposing an amendment to the Constitution of the Kansas Medical Society.

Resolved, That Section 2 of Article XI of the Constitution of the Kansas Medical Society be stricken out and the following be substituted therefor:

ARTICLE XI, SECTION 2. The sum accruing from one dollar per capita of the annual membership dues of the Society, together with any additional funds specially appropriated, and together with any unexpended residue of previous appropriations for the same purpose, shall be set apart and constitute a Medical Defense Fund, and shall be subject to expenditure on vouchers signed by the chairman of the Defense Board and countersigned by the president of the Society.

O. P. DAVIS.

—R—

When Is Gonorrhea Cured?

It is not a simple matter to determine when a case of gonorrhea is cured, according to Walbarst, in the New York Medical Journal, Jan. 23. He says: "Notwithstanding the fact that the patient has been treated according to the best methods, that he has responded beyond all expectation, that he feels perfectly well, and ap-

pears well clinically, there must always be present, in the physician's eye, the possibility of gonococci hiding somewhere in that patient's urethra or its anexa, which may, at some remote and future time, awaken and set up an infection similar to a greater or less degree, to the one from which he has already recovered."

The question is more definitely answered in cases of first infection, especially those which run a simple uncomplicated course, for in these the anterior urethra bears the brunt of the attack, but even in these, he says, an "examination should always include the prostate and seminal vesicles, as a matter of precaution."

The question is rendered more difficult of solution by the fact that practically every organ of the body is capable of infection by the gonococcus. "Even the blood stream is not exempt. In sixty-seven cases examined by Lofaro, he found gonococci in the blood in 58.2 per cent of cases of acute or chronic urethritis; in 100 per cent of cases of chronic urethritis with stricture; in over sixty-six per cent of cases with glandular involvement; in over seventy-three per cent of cases with epididymitis."

A single microscopic examination of the urine or of a discharge is not sufficient to safely pronounce a patient cured. Although one may have a urethral discharge which is not due to gonorrhea, every discharge should "be examined frequently for a considerable time, under all possible conditions, before we can confidently conclude that it is devoid of gonococci." If the discharge has ceased it should be reproduced for the purpose of microscopic examination and culture. In doubtful cases the hypodermic injection of gonococcus vaccine will cause a general and focal reaction if there is any gonorrheal infection. There will be an increased urethral secretion in which gonococci may be found. No reaction is produced by the vaccine in cases that have had gonorrhea and fully recovered.

In conclusion he says: "Suming up the matter we may conclude that no patient

can be declared cured of gonorrhea unless the following tests have been carefully and repeatedly performed:

1. Microscopic and cultural examination of the centrifugated morning urine, as well as the washings from the irrigation of the anterior urethra.

2. Microscopic and cultural examination of the urethral discharge—whether spontaneous or artificial.

3. Microscopic and cultural examination of the massaged secretion of the prostate and seminal vesicles.

4. Urethroscopic examination of the anterior and posterior urethra.

5. Complement fixation test.

6. Skin reaction and hypodermic injection with gonococcus vaccine (still *sub judice*).

Should all of these tests prove negative repeatedly, we may then feel that as far as present knowledge permits, the patient may be declared cured; but the physician cannot assume the full responsibility and guarantee the cure. The patient himself must assume that responsibility."

—R—

Wisconsin Eugenic Law.

The efficiency of the eugenic law which was enacted by the legislature of Wisconsin some years ago, seems to be in question. At least we judge from the following, which appears as an editorial in the January number of the Wisconsin Medical Journal, that the physicians there are not fully in accord with its provisions.

"It is possible that efforts may be made during the present session of the legislature to amend or to repeal the so-called Eugenic Bill. At a meeting of the Medical Society of Milwaukee County held recently a resolution asked for its repeal was passed by a large majority.

"With the idea which gave rise to this bill the medical profession ought to find itself in sympathy. No one knows better than we do the extent and gravity of venereal infection. The desirability of limiting its spread must be recognized by all. The only discussion, then, ought to be in regard to the question of methods,—

of how the spread of venereal diseases can best be checked.

"The examination of applicants for a marriage license is a perfectly reasonable measure in itself. Unfortunately there is no known way of making such an examination infallible or fool-proof. The trouble with the present law is that it attempts this impossible feat. If the authors of the law had been satisfied to accept a statement from the examining physician that he had made a careful examination of the applicant and found him free from evidence of venereal disease, some good would have been accomplished and no great opposition would have been roused. Under such a law some cases of latent infection would of necessity slip past the examining physicians, some would be missed on account of lack of thoroughness or lack of equipment for microscopical examinations. Some instances of misrepresentation and fraud would undoubtedly occur. But under such a law the physicians would be able to try conscientiously to co-operate with the state authorities in checking the spread of venereal infection. As much would be accomplished as can reasonably be expected of any measure of this character.

But under the wording of the present law a conscientious carrying out of its provisions is an impossibility for the general practitioner. The medical man knows this even though the Attorney General may not. The result is that the medical profession feels itself constantly imposed upon and resents the demand of impossibilities. Under the existing circumstances it is no wonder that the examinations have degenerated into a mere perfunctory routine in many cases. Nothing else could be expected.

Undoubtedly the discussion of the subject has had an educational effect in the community. Without question there is a more wide-spread knowledge of the dangers, present and remote, which accompany venereal infection. If this good effect is to be maintained, if this law is to be kept on the statute books, and if the co-operation of physicians is desired in

making it effective, it is certainly only fair to ask for such a modification of its requirements as shall do away with the conscientious objections of the medical profession."

—R—

A Cause of Hemorrhoids.

It is claimed by E. Palier, in the New York Medical Journal, that there is a close relationship between hemorrhoids and hyperchlorhydria. He is satisfied from his examinations of a number of cases—he does not say how many—that hemorrhoids are invariably accompanied by hyperchlorhydria. He says: "The diagnosis of hyperchlorhydria can be made by simply examining the rectum." However, he later admits that if there are no piles it does not prove that there is no hyperchlorhydria. His treatment consists of the administration of a teaspoonful of sodium bicarbonate, a hot sitz bath, rest in bed and local applications of lead and opium.

—R—

Some Observations on Intranasal Surgery

In the January number of the New Albany Medical Herald, Dr. C. W. Richardson of Washington, has an article on "Some Observations on Intranasal Surgery." In this article the author suggests that much of the intranasal surgery now being done is unnecessary and in some cases really harmful. He believes from his own experience that hypertrophied turbinates may be reduced by careful attention to diet and simple local treatment. He finds these conditions frequently in those whose diet consists largely of carbohydrates and who are improperly clad and who do not have sufficient exercise.

—R—

Dr. T. E. Smith of Colony has transferred his practice at that place to Dr. H. J. Hatfield, formerly of Haven, Kansas. Dr. Smith is now in Chicago, taking some post-graduate work in diseases of the eye, ear, nose and throat.

—R—

Dr. Otto Kiene, for several years house surgeon at Christ's Hospital, has located

at Concordia where he has taken the office and practice of the late Dr. Priest. He has been appointed Surgeon in Chief of the hospital there and will devote himself to general surgery.

—R—

It will be very satisfying to the physicians of Kansas to learn that the Board of Health has requested an appropriation of \$2,500 for the maintenance of the State Bacteriologic Department.



I thank the very considerable number of friends who have written, or otherwise expressed, their approval of the Corral. Their generous words are splendid salve for the abrasions I have received at the hands of others. I should be glad to let you smell some of the bouquets that have come this way, but modesty forbids, as well as lack of space here, in which to display the flowers. I fear the Editor, across the aisle, might kick the stuff out. I have taxed his forbearance enough already.

* * *

Right here let me say that I wish to be the one blamed for any indiscretions of utterance in the Corral. When I undertook to preside over this circumscribed area of untamed and unbridled disportation, I intimated that I would feel free to turn loose in these confines such comments, criticisms and freaks of imagination and interpretation as might be clamoring for expression. No one is expected to attend this exhibition if it is against his conscience or religious scruples to do so, for the high fence around it and the sign at the entrance give due warning to the unwary as to the questionable nature of the preserves.

* * *

I have very little use for any publication that is muzzled and blindfolded. Things that need criticism should be criti-

cised, and that fearlessly. As a member of the Council, I shall stand uncompromisingly for the freedom of the editor, associate editors, (if there are really any such), as well as individual members of the Society, to give expression in the columns of the Journal to any criticism or any objection they may have to matters of policy or of conduct on the part of institutions, officers or individuals, if such policy or conduct concern, in any way, the professional interest or welfare. And, while the Corral is not to be considered a knockers' department, I shall not hope to be able to keep the ponies harbored therein under complete and continuous restraint.

* * *

In a discussion of editorial policy, recently, some one said that he believed it was all right for an editor to make criticisms of policies and institutions, but that such criticisms should be *constructive* and not *destructive*. This raises the natural question, What is "constructive" criticism and what is "destructive" criticism? Is there, in fact, any end-result implied in true, unbiased criticism? How can criticism be other than a pointing out of fault or error, regardless of result? If the correction of the fault or error causes much undoing, much replacement, much reparation, is it not as truly constructive as destructive? And where the fault or error is pointed out or detected, is not the remedy—or the reconstruction—usually more or less obvious? In other words, is not all criticism inherently "constructive"?

Some people interpret criticism to be "constructive" or "destructive" according to whether it agrees or disagrees with their own preconceived notions or plans. If it is unpalatable, or if it casts a shadow across the path of their six-cylinder, it is "destructive." If it is quite agreeable, in the main, or doesn't at all disturb their self-complacency; if it calls attention only to their need of larger facilities, their inadequate remuneration, their all but realized dreams of empire in their chosen field of endeavor,—this will be indeed the sweet morsel beneath the tongue that may be

properly styled "constructive" criticism.

By such egotists, any attempt one might make to inquire into the motives of an act; any disposition to analyze the methods or to predict the result of a given course of procedure, any comment other than commendatory about their conspicuous doings,—all this is interpreted as unfriendly and "destructive" criticism. "Say nothing but good of the dead" is an old proverb. And these people who fear "destructive" criticism exclaim, "Don't say anything about us if you can't say what is nice. All we ask is to be let alone."

—————R—————

Senate Bill No. 150.

AN ACT to provide for the preliminary examination of all persons desiring to practice medicine, surgery, or any other form of the healing art in the State of Kansas; amending Section 2 of Chapter 290 of the Laws of 1913, Section 8 of Chapter 290 of the Laws of 1913, Section 5 of Chapter 291 of the Laws of 1913, repealing said original Sections and making an appropriation to provide for the purposes of this Act, and providing a penalty for the violation thereof.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF KANSAS:

Section 1. The Chancellor of the State University, the President of the State Agricultural College and the President of the State Normal School at Emporia, shall constitute a Board of Preliminary Examination to examine and certify to the educational qualifications of all persons desiring to practice medicine, surgery, or any other form of the healing art in the State of Kansas.

Section 2. The Chancellor of the State University shall be ex-officio president of the said Board. The Secretary of the State Board of Administration shall be ex-officio secretary of the said Board and keep the records of its proceedings and register the certificates issued by the said Board of Preliminary Examination. The said Board shall select and procure a seal for the purpose of authenticating the acts and proceedings of said Board, which seal shall be in the custody of the Secretary and be by him used to authenticate the certificates herein provided for.

Section 3. Any person not now licensed to practice medicine, surgery, or any form

of the healing art in the State of Kansas, shall, before undertaking to so practice, present himself or herself to the State Board of Preliminary Examination before seeking a license from any Board established by law for the examining and licensing of such persons, but nothing in this act shall be construed as interfering with any religious beliefs in the treatment of diseases, provided that quarantine regulations relating to contagious diseases are not infringed upon.

Section 4. Such persons so applying shall satisfy the Board of Preliminary Examination that he or she has had a four years course in some reputable and established high school, or its equivalent, shall have spent at least four years, of at least eight months in each year of personal attendance in some reputable college of medicine and surgery. The practitioners of Osteopathy or other form of the healing art shall have spent at least three years of nine months in each year, and after January, 1920, four years of eight months in each year in a reputable college of Osteopathy, or other form of healing art, which course shall include a study in Anatomy, Physiology, Pathology, Surgery, Gynecology, Obstetrics, Chemistry, Bacteriology, Symptomatology, Diagnosis, Urine Analysis, Hygiene and Sanitation, and is a person of good moral character. Provided, that after the first day of January, 1920, such applicant shall also satisfy the Board of Preliminary Examination that he or she has taken a two years course in the study of Latin in such high school and at least one year's work in some reputable college.

Section 5. Whenever the Board of Preliminary Examination shall be in doubt as to the educational qualifications of the applicant, the Board shall cause such applicant to be examined by a committee selected by the Board of Preliminary Examination for that purpose.

Section 6. The State Board of Preliminary Examination shall meet in the city of Topeka on the second Monday in February and June of each year, and such

other days as they may designate, for the purpose of conducting such examinations.

Section 7. When satisfied that the applicant is qualified as provided in this act, such board shall issue to the applicant a certificate signed by the members of the Board, the Secretary thereof, and authenticated with the seal of the Board. No fee shall be charged to the applicant for the examination above provided for.

Section 8. Each member of the said Board shall receive his actual expenses for attendance on meetings of said Board, to be paid by the State of Kansas.

Section 9. The foregoing Sections shall apply to every person who shall treat, or offer to treat, for a fee by any means whatever any bodily or mental disease, ailment, or any malformation or injury of human beings, and any such person so doing who is not now licensed, without having obtained a certificate from the Board of Preliminary Examinations shall be deemed guilty of misdemeanor and shall be subject to a fine of not less than the sum of fifty dollars (\$50.00), nor more than Five Hundred Dollars (\$500.00) on each count, and the County Attorney of each county of Kansas, is hereby directed to prosecute such misdemeanor.

Section 10. Any member of any Board who shall permit the examination of any person for such license without having first obtained a certificate from the said Board of Preliminary Examination, shall be deemed guilty of misdemeanor, and upon conviction thereof, shall be fined not less than the sum of fifty dollars nor more than five hundred dollars, and the County Attorney of each county of Kansas, is hereby directed to prosecute such misdemeanor.

Section 11. Section 2 of Chapter 290 of the Laws of 1913 is hereby amended so as to read as follows:

Section 2. Any person not now a registered osteopathic physician of this state, before engaging in the practice of osteopathy in this state shall make application, on a form prescribed by the osteopathic board, for a certificate to practice osteo-

pathy, which application shall be accompanied by a fee of twenty dollars, giving first his name and age, which shall not be less than twenty-one years, and residence, and a certificate from the Board of Preliminary Examination. The board shall subject all applicants to a practical examination as to their qualifications for the practice of osteopathy, in writing, in subjects of anatomy, physiology, physiological chemistry and toxicology, pathology, diagnosis, hygiene, obstetrics, and gynecology, surgery, principles and practice of osteopathy, and such other subjects as the board may require. This may be supplemented by other practical examinations such as the board may by rule determine. If such examination is passed in a manner satisfactory to the board, then the board shall issue to said applicant a certificate granting him the right to practice osteopathy in the state of Kansas, as taught and practiced in the legally incorporated colleges of osteopathy of good repute. All examination papers shall be recorded and kept by the board. Any person failing to pass such examination may be re-examined at any regular meeting of the board within one year from the time of such failure, without additional fee; provided, that the Board may, in its discretion dispense with an examination in the case, first, of an osteopathic physician duly authorized to practice osteopathy in any state, territory, District of Columbia, or any foreign country, who presents a certificate of license issued after an examination by a legally constituted board of said state, territory, District of Columbia, or foreign country, accorded only to applicants of equal grade with those required in this state; or second, an osteopathic physician who has been in actual practice of osteopathy for five years prior to the application for license, and who is a graduate of a reputable school or college of osteopathy, who may desire to change his residence to this state and who makes application on a form to be prescribed by the board, and accompanied by a fee of not less than that of the state, territory,

District of Columbia, or foreign country, from which they come, which shall not be less than forty dollars. The secretary of the board may grant a temporary permit until a regular meeting of the board or to such time as the board can conveniently meet, to one whom he considers eligible to practice in the state and who may desire to commence the practice immediately. Such permit shall only be valid until legal action of the board can be taken. The Board may refuse to grant a certificate to any person convicted of felony or of gross unprofessional conduct, or who is addicted to any vice to such degree as to render him unfit to practice osteopathy, and may, after due notice and hearing, revoke such certificate for like cause.

Section 12. Section 8 of Chapter 290 of the Laws of 1913, is hereby amended so as to read as follows:

Section 8. That, Section 8087 of the General Statutes of the State of Kansas of 1909, be and the same is hereby amended to read as follows: Sec. 8087. All persons intending to practice medicine or surgery after the passage of this act, and all persons who shall not have complied with Section 2 of this act, shall apply to said board at any regular meeting, or at any other time or place as may be designated by the board for a license. Application shall be made in writing, and shall be accompanied by the fee hereinafter specified, together with the age and residence of the applicant, proof that he is of good moral character and a certificate from the State Board of Preliminary Examination. All such candidates, except as hereinafter provided, shall submit to an examination of a character to test their qualifications as practitioners of medicine or surgery and which shall embrace all those topics and subjects, a knowledge of which is generally required by reputable medical colleges of the United States for the degree of doctor of medicine: Provided, that graduates of legally chartered medical institutions of the United States or foreign countries in good standing and holding a certificate from the Board of Preliminary

Examination, may be, at the discretion of the board, granted a license without examination. Provided, further, that the board may in its discretion accept, in lieu of examination or diploma, the certificate of the board of registration and examination of any other state or territory of the United States or any foreign country whose standards or qualification for practice are equivalent to those of this state. Provided that nothing in this act shall be construed as interfering with the practice of the religious tenets of any church in the ministration of the sick and suffering by mental and spiritual means without the use of any drug or material remedy, whether gratuitously or for compensation, provided that quarantine regulations relating to contagious diseases are not infringed upon.

Section 13. Section 5 of Chapter 291 of the Laws of 1913 is hereby amended so as to read as follows:

Section 5. (a). Any person wishing the right to practice chiropractic in this state, before it shall be lawful for him to do so shall make application to said State Board of Chiropractic Examiners, upon such form thereof and in such manner as may be adopted and directed by the board at least fifteen (15) days prior to any meeting of said board. Applications shall be in writing and shall be signed by the applicant in his own hand writing and shall be sworn to before some officer authorized to administer oath, and shall recite the history of the applicant as to his educational advantages, his experience in matters pertaining to a knowledge of the care of the sick, how long he has studied chiropractic, under what teachers, what collateral branches, if any, he has studied, the length of time he has engaged in clinical practice, accompanying the same by reference therein, with any proof thereof in the shape of diplomas, certificates, etc., and shall accompany said application with satisfactory evidence of good character and reputation, and a certificate from the State Board of Preliminary Examination.

(b). There shall be paid to the secretary-treasurer of the State Board of Chiropractic Examiners by each applicant for a license, a fee of fifteen dollars, ten dollars of which shall accompany application and the remainder five dollars shall be paid upon issuance of license. Like fees shall be paid for any subsequent examination and application.

Section 14. Original Sections 2 and 8 of Chapter 290 of the Laws of 1913, and Original Section 5 of Chapter 291 of the Laws of 1913, and all other acts and parts of acts in conflict herewith are hereby repealed.

Section 15. The above act shall be deemed and taken as cumulative and additional to all laws relating to the practice of the healing art in the States of Kansas.

Section 16. This act shall take effect and be in force from and after its publication in the official state paper.

SOCIETY NOTES.

Meeting of the Council of the Kansas Medical Society, Held at Topeka, January 21, 1915.

President W. F. Sawhill in the chair. C. S. Huffman, Secretary.

Councillors present: Reynolds, Goddard, Davis, Currie, Mason, Walker, Kenney, Stoner, Fee and Caffey. Others who attended the meeting were: Drs. McVey, Gsell, Sawtell and Nesselrode.

It was decided that the next meeting should be held on May 5th and 6th, 1915.

E. D. McKeever, the attorney for the Medical Defense Board, was present, and gave a talk covering the history of the work that had been done during the past year. The new medical bill that had been drafted by the commission appointed by Governor Hodges, was read and discussed by all present. Motion was made and carried, that the State Society get behind this bill and assist in getting it enacted into a law. An amendment to the constitution was offered, which provided as follows:

That Article 11, Section 2, should be amended to read "one dollar" in place of

"twenty-five cents." This was adopted and the editor was instructed to publish it twice in the Journal of the Society during the year.

The Committee on Scientific Work, was instructed in preparing the program, to provide that the House of Delegates should meet in the evening of the first day. They were also instructed to secure two men of note, from outside of the State, to prepare addresses to be given before the Society.

Bills amounting to \$388.38 were allowed. Dr. W. E. McVey was re-elected as editor for the ensuing year.

The Secretary of the Society read a paper from the Secretary of the A. M. A. on a plan to increase the membership of the State Society, and asked the State Society to co-operate with the A. M. A. in this work. This plan was endorsed, and the Secretary instructed to so notify the A. M. A.

CHAS. S. HUFFMAN, Secretary.

—R—

NOTICE OF MEETING.

The next meeting of the Northeast Kansas Medical Society will be held in Lawrence on February 25th. A good program is promised.

ANDERSON COUNTY SOCIETY.

The Anderson County Society met in December, 1914, and at this meeting the following officers were elected for the year:

President, J. R. Smithheisler, M. D., Westphalia.

Vice-president, A. J. Turner, M. D., Garnett.

Secretary, T. A. Hood, M. D. Garnett.

Treasurer, Thomas Kirkpatrick, M. D., Garnett.

Delegate, T. E. Smith, M. D., Colony.

—T. A. HOOD, Sec'y.

WYANDOTTE COUNTY SOCIETY.

At the annual meeting of the Wyandotte County Society, December 22, the following officers were elected:

President, Dr. Leslie Leverick.

Vice-president, Dr. L. B. Spake.

Secretary, Dr. C. J. Lidikay.

Treasurer, Dr. Thomas Richmond.

Censors: Drs. W. F. Fairbanks, E. D. Williams, C. L. Zugg.

At the meeting of January 19 the following program was furnished:

Report of Cases by Dr. L. D. Mabie.

Some Practical Points in Infant Feeding for the General Practitioner, by Dr. David E. Broderick.

GOLDEN BELT MEDICAL SOCIETY.

The Golden Belt Medical Society met in Salina on January 7 and the following program was furnished.

Typhoid Fever, Report of a Case, Dr. C. D. Vermillion, Tescott, Kan.

Anesthesia, Dr. Longaker, Lindsborg, Kan.

Screw Worm Infection of the Nose, Report of a Case, Dr. Benj. Brunner, Wamego, Kan.

Can the National and State Medical Journals be of Greater Benefit to the Profession in General? And How? Dr. W. A. Klingberg, Elmo, Kan.

Dinner with the Salina Profession at 7 p. m.

Tuberculosis of the Radius with the Report of a case, Dr. J. C. Wilhoit, Manhattan, Kan.

Courtesy and Harmony in the Medical Profession, Dr. S. N. Chaffee, Talmage, Kan.

SHAWNEE COUNTY SOCIETY.

The monthly meeting of the Shawnee County Medical Society was held in the Commercial Club rooms Monday evening, February 1st. Dr. Crabb showed a six month monster, the face and features of which showed a remarkable and striking resemblance to those of our Primate Ancestors. The woman in question saw a great deal of, and was much interested in two baby monkeys in the local zoo, during the first six weeks of her gestation period, and the popular impression was, of course, that she thereby had "marked the baby." Much discussion of the question was evolved, scientific, facetious,—and the

result of it all seemed to be a draw.

Dr. Milton Conner read an extremely interesting paper on Vaccines and Vaccine Therapy. A most thorough review of the literature was given, and very specific details as to cases suitable for treatment; the quantity to be injected at a time; the lapse of time between injections and indications for the increase of the dose. The reasons for, and advantages of auto-genous vaccines received special mention and consideration, and unquestionably the trend of thought is strongly set toward their use whenever possible. Vaccine therapy is perhaps the greatest addition to scientific medicine in the last fifteen years, but many conditions are not amenable to it, and the Profession must be educated in the fundamentals, before it can take its proper place in the list of therapeutic measures.

Two new members were voted in, Dr. Elmore of Osage City, and Dr. Silverthorn of Maple Hill.

ARTHUR K. OWEN, M. D., Sec'y.

THE TRI-COUNTY SOCIETY.

The Tri-County Society met at Hoxie on January 20 for the purpose of reorganization and election of officers for the ensuing year.

The following officers were elected: President, J. H. McNaughton, M. D., Gove City; vice-president, C. M. Miller, M. D., Oakley; secretary and treasurer, D. R. Stoner, M. D., Quinter; censor, W. J. Lewis, M. D., Colby.

The work for the year was outlined and it was unanimously decided to hold a number of public meetings during the year in various parts of the district. There was a general discussion on the subject of public health and legislation.

The following physicians were present: W. J. Lewis, Colby; E. D. Beckner, Hoxie; A. C. Wilmot, Moreland; W. Forbes, Rexford; J. W. Pope, Selden; I. B. Parker, Hill City; E. Fleming, Hill City; Lottie Findley, Hill City; E. J. Beckner, Grainfield.

The next meeting will be held in Hoxie

in April and will be a public meeting.

D. R. STONER, M. D., Sec'y-Treasurer.

MARION COUNTY SOCIETY.

The Marion County Society will hold its next meeting in Marion, February 17. The following program has been arranged:

Bronchial Pneumonia by E. H. Johnson; Rheumatism, by G. J. Goodsheller; Tuberculosis, by J. J. Entz.

R

Special Internal Secretion Number.

The editors of the Woman's Medical Journal wish to call especial attention to the March issue which will be an "Internal Secretion" number, and will contain much of interest on this most interesting subject.

The contributors are particularly well known and able members of the medical profession. Dr. Eugene Hertoghe of Antwerp, Belgium, is perhaps the foremost authority in Europe on his specialty, "Hyper-thyroidism," and he contributes a most helpful and scientific article based on researches he has made in his study of the thyroid gland. Dr. Henry R. Harrower of New York, is an authority on "Hormone Therapy," having recently written a very important book having for its title "Practical Hormone Therapy." Dr. Harrower will consider mammary therapeutics in an article entitled, "The Mamma as an Internal Secretory Organ."

Readers of the Journal need no introduction to the other contributors of this special number. Dr. Mary Sutton Macy, and Dr. William Seaman Bainbridge, both of New York, have frequently given us helpful and sound advice in their former contributions. In this number Dr. Macy will write on "Rest as a Therapeutic Measure in Systemic Goitre," while Dr. Bainbridge will give some of the results of his large experience in the study of the "Internal Secretion of the Ovary."

Our readers are assured of a splendid symposium, which will prove both helpful and inspiring.

The Kansas Doctor's Dream.

BY WALTER GRAVES, M. D.

Doc Mac—he had a dream one night—told me a while ago.

He thought that he had died, an' that he'd started on below.

Thar wasn't no one passed him as he motored down the road

With flags an' banners flyin', an' a-speed-in' *a-la-mode*.

An' soon he saw a demon with a pitch-fork in his hand,

With horns an' hoofs etsettry, flame an' smoke to beat the band.

The demon-cop, he halted him, and said, right savage, too:

"You're breakin' the speed-limit, an' it's shore good-night fer you."

But when he saw a banneret, with "Kansas" printed plain

He got red hot. The sight o' "Kansas" seemed to give him pain.

"Now you git off the pike," he yelled. "We got some Kansas blokes

In Hell right now. Don't want no more. They ain't our kind o' folks.

They go perambulatin' 'round an' mon-keyin' with things,

A-shootin' up the coal trust, an' bustin' up the rings,

A-meddlin' with the furnace, an' improvin' o' the draft

An' swearin' that th' efficiency must be increased by half.

Bellzebub's a-sweatin' blood. His eyes is gettin' dim

With fear that these here Kansans will make Hell too hot fer him.

Now git right off the pike, I say, an' take that narrer lane.

A short-cut to the pearly gate, an' don't come back again."

The demon raised his pitch-fork, an' he aimed it at the wheel.

Over his shoulder come his tail. It's p'int was tipped with steel.

The flames come belchin' from his mouth, the smoke poured from his eyes,

Th' appearance o' the fiend was calculated to surprise,

A common ordinary man, an' fill him with dismay.

He little thought how this 'ere soul would meet his bluffin' play.

Doc Mac,—he felt his dander rise at hearin' this 'ere fiend

A-cussin' of a Kansas gent,—a little forrard leaned,

An' clinched his teeth, an' gripped his wheel, an' turned on some more juice,

An' planted his big feet in the posish to bust 'er loose.

He meant to charge this demon-cop, an' muss him up a bit,

An' then speed down the pike to Hell, an' make a mess of it.

Fer he knowed his old Pierce-Arrow, an' he knowed where he was at,

An' he knowed thar wasn't anything to hurt a car like that.

He hit 'im in the furnace, an' he hit 'im in the stack—

He ripped him up from horns to hoofs, an' broke the critter's back.

The flames that lit that battle-wreck was sulphurous for true,

They burnt his flags an' bannerets, an' singed his whiskers, too.

But th' old Pierce-Arrow done the trick, with th' doctor at the wheel,

An' flattened out that demon-cop clear to the p'int o' steel.

Then all at once the scene was changed; an' up the narrer lane

The car was glidin' smoothly on, singin' a soft refrain

Like a little kitten, purrin', half asleep beside the stove.

I bet Doc thinks that sweeter than the songs o' the choirs above.

An' though the way was pretty steep, he kep' her on the high,

Till as he reached the top, he heard the water gurglin' by.

After his mixup with the fiend, it sounded mighty good,—

Remindin' him o' Kansas an' the falls o' the Cottonwood,

A ripplin' an' a purlin',—why, it thrilled
him through an' through,—
Like the swirlin', splashin' water, o' the
rapids o' the Blue.

An' now his way was strewed with flowers
whose fragrance filled the air;

An' he thought he was in Kansas,—on her
boundless prairies fair,—

Her boundless billowy prairies, carpeted
with flowers sweet,

A-stretchin' out on every side, 'till earth
an' Heaven meet;—

With flowers, whose lovely faces answer
smiles o' fairest skies,—

All dewy in the morn afore the sun has
kissed their eyes.

Old Doc choked up a little bit at this
p'int of his tale.

I guess he didn't see much more. Thar
must a' been a veil

Afore his eyes, at thinkin' o' the dear old
Kansas state.

An' 'fore he knowed it, thar he was, right
at the pearly gate.

He come nigh buttin' into it. The car
stopped with a chug.

The ticket winder opened, an' St. Peter's
friendly mug

Appeared to view. He looked him over.
"Ticket," said the saint.

O' course, he didn't have one; an' he said,
a little faint,

He feared he was quite onprepared, an'
guessed his chanst was gone.

"H'm!" said St. Peter, "well, we'll see
about that later on.

Name, please," the saint continued; an'
Doc answered kinder meek,

That while on earth he's usual knowed as
Doctor B. McQueek.

"Ah!" said St. Peter; "you have got a
l-lot o' friends in here."

He said it sorter meanin' an' Doc felt a
little queer.

"Where from?" asked Uncle Peter; an'
now Doc perked up a bit,

An' said he came from Kansas, an' wa'n't
ashamed of it.

"Well, I should hope not," said the saint.
"I know them little jokes

About the Kansas people, but they're jist
our kind o' folks.

We got about a million; and you'd oughter
hear the songs

They sing o' 'Kansas, Kansas' always to
applaudin' throngs.

"They sing o' purple sunsets, azure skies,—
the rosy morn;

O' rustlin' wheat, an' billowy prairies, an'
o' walls o' corn.

Thar's fervor, an' thar's swing, an' tang,
in th' Kansas music sweet,

That stirs your blood, an' grips your heart,
an' lifts your trippin' feet.

King David ast me 'tother day 'f I thought
'twould be a sin

Fer him to throw away his harp, an' git
a violin,

He said that 'the still waters' in the psalm
o' his you know,

Ought to been writ so as to read,—'the
ripplin' waters flow.'

Fer he's learned the Kansas language, with
its ginger, an' its pep,

An' now, instid o' sayin' 'yea,' he always
answers 'yep'.

"But them are not the only songs the
Kansas angels sing;

Fer in the Hallelujah choir, their glorious
voices ring

An' swell, fillin' the Heavenly vault, up
to the great white Throne,

Rejoicin' the celestial hosts, a-thrillin'
everyone.

We thought we had some scrumptious
chorus, clear to the grand Amen;

But when them Lindsborg seraphs sung,
we had to guess again.

"They're princes,—these here Kansans, but
I can't quite understand

Why they don't like their golden crowns.
That little Jayhawk band

Got up petitions that we make their
crowns o' silver white.

We done so. Then they asked of us to
make their stars as bright

As the glow in the eyes of a Kansas girl
upon her weddin' morn.

We tried to do that fer 'em too; but jist
 as shore's you're born,
 They thought them stars wa'n't even as
 bright as the pearly drops of dew
 Upon the Kansas short-grass. They was
 disapp'inted, too.
 An' one young artist angel said,—it nearly
 made me swoon,—
 That the palace light's less soft than that
 o' the Kansas harvest moon.
 But they take their disapp'intment nice,
 an' don't make any fuss.
 They know we do the best we kin, an'
 sympathize with us."

The saint leaned on his elbows, an' a
 curious little grin
 Stole o'er his face. He softly said: "Afore
 I let you in,
 I want to tell you somethin' more. That
 road you come on—well,
 It's ginerall knowed in Heaven as the
 safety-valve o' Hell.
 I saw that little scrimmage with the
 demon-cop down there,
 An' switcht you on to it because they
 ha'n't no more to spare.
 They're stayin' home. The Kansas spirits,
 weary o' their thrall,
 Are gittin' busy. Lucifer's a-facin' a
 recall.
 An' if you'd took that car down there, he'd
 shore 'a' had a fit.
 We're goin' t' abolish him some day, but
 ain't quite ready yit.

"The road was built quite recent. When
 the Kansas nation rose,
 While most o' the spirits come up here, a
 passel of 'em chose
 T' investigate the other end o' that 'ere
 Broadway pike,
 An' went below; but when they found they
 wasn't goin' to like
 The treatment there, they acted up insur-
 gent to the chief;
 An' Lucifer found he was in fer various
 kinds o' grief;
 An' had the gall to send a wire to Heaven
 fer help to quell
 This Kansas insurrection. He was 'feared
 they'd bust up Hell.

An' so we built that country, jist to let
 off surplus steam.
 The Kansas angels finished it, an' made it
 like a dream.
 It's jist a repliky o' Kansas prairie, hill
 an' dale.
 From Wyandotte to Garden; an' they call
 the road 'The Trail.'

"Oh, you're all right in Kansas. Well,
 excuse this long pow-wow.
 Come in; but you won't like it. I kin tell
 you that, right now."

The saint reached up to pull the latch,
 when suddenly a swarm
 O' white-robed silver-crowned young angels
 swept to view. A storm
 O' welcome sweet saluted Mac. He knowed
 'em as they come,
 Shoutin' "Hurrah fer Kansas, Doc. How's
 everyone to home?"

He woke up sudden, says he didn't git a
 glimpse inside.
 He's goin' to stick to Kansas jist as long
 as he kin ride.

————— R —————

There is a splendid opportunity for
 someone, who is interested in orthopedic
 surgery, at the Children's Hospital, in
 Boston.

The Children's Hospital is a teaching
 hospital of the Harvard Medical School,
 and is situated directly next to it, forming
 one of the group of affiliated hospitals.
 Daily teaching is done in the wards
 and amphitheater by the hospital staff.

The terms of service begin on the first
 Monday of March, June, September, and
 December, and the service consists of the
 care of Orthopedic affections in children,
 under a resident surgeon.

Applications for positions on the house
 staff, three months as junior, and three
 months as house surgeon, should be ad-
 dressed to the surgeon, Dr. R. W. Lovett,
 234 Marlborough street, Boston, and for-
 warded to him.

THERAPEUTIC NOTES

The influence of flowers in lightening sorrow and suffering has always been recognized, but their employment as an actual remedy in cases of sickness is recent. Laymen as well as physicians know the power of mental attitudes in helping invalids to health and the blooms so bountifully provided by nature are an obvious means of drawing the sufferer's attention from his or her condition to more cheerful thoughts. Perhaps nowhere, however, has this idea been so strongly adopted as in Battle Creek, Michigan, famous as "the health food city." At the Battle Creek Sanitarium, physicians prescribe flowers for patients just as they would order massage or an application of electricity.

Many chronic sufferers have disorders of the stomach and nerves, which oftentimes cause severe depression of spirits. Modern medicine does not content itself with drugs, but lays stress on a pleasing diet, entertainment of a non-exciting kind, amusement and exercise suited to the case, and, in general, conditions which make life agreeable. When a patient at the sanitarium is feeling particularly in the dumps, the physician orders a blooming plant or a vase of flowers, and the effects is often pronounced. Of course, women are more susceptible to this influence than men, but some of the men take a surprising lot of comfort from this "medicine."

—R—

New and Non-official Remedies.

Since publication of New and Non-official Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies":

Cantharidin.—The anhydride of cantharidic acid preparations of cantharidin are used in place of corresponding preparations of cantharides and have the advantage of being cleanly, and more uniform in strength. A 0.1 per cent solution of cantharidin in a fixed oil raises blisters

when kept in contact with the skin (Jour. A. M. A., Jan. 2, 1915, p. 53).

Benzene, Medicinal.—A liquid consisting almost entirely of benzene. Medicinal benzene has been used in the treatment of leukemia. In many cases the improvement is such as to suggest an apparent cure. A large number, if not all, cases relapse or succumb to the toxic action of the benzene. The drug is in the experimental stage and should be used with caution (Jour. A. M. A., Jan. 2, 1915, p. 54).

Benzene, Merck, H. P. Crystallizable.—A brand of medicinal benzene. Merck and Co., New York (Jour. A. M. A., Jan. 2, 1915, p. 54).

Leucocyte Extract.—An extract of leucocytes obtained from exudates produced in the pleural cavity of rabbits or other animals. It is said to be of value as an aid to specific serums or antitoxins and vaccines. It is claimed to be of use itself where the nature of an infection is not known. Its use is in the experimental stage (Jour. A. M. A., Jan. 2, 1915, p. 54).

Leucocyte Extract, Squibb.—A leucocyte extract prepared according to the method of Hiss. It is sold in syringes containing 10 c.c. E. R. Squibb and Sons, New York City (Jour. A. M. A., Jan. 2, 1915, p. 54).

Silver Citrate, Merck.—A brand of silver citrate admitted to New and Non-official Remedies. Merck and Co., New York (Jour. A. M. A., Jan. 2, 1915, p. 54).

Silver Lactate, Merck.—A brand of silver lactate admitted to New and Non-official Remedies. Merck and Co., New York (Jour. A. M. A., Jan. 2, 1915, p. 54).

Digitoxin, Merck.—A brand of digitoxin admitted to New and Non-official Remedies, Merck and Co., New York (Jour. A. M. A., Jan. 2, 1915, p. 54).

Luetin.—An extract of the killed cultures of several strains of the *Treponema pallidum*, the causative agent of syphilis. It is employed for the diagnosis of syphilis. It is of use in the examination of tertiary cases, but rarely gives a positive reaction in primary cases or in untreated secondary

cases. Luetin is supplied as:

Luetin, Mulford.—Packages sufficient for a single test, for five tests and for fifty tests. The H. K. Mulford Co., Philadelphia (Jour. A. M. A., Jan. 23, 1915, p. 343).

Glycotauro Capsules (half size).—Each capsule contains Glycotauro (see N. N. R.) 0.15 Gm. Hynson, Westcott and Co., Baltimore, Md. (Jour. A. M. A., Jan. 23, 1915, p. 343).

During January the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Hynson, Westcott and Co.; Glycotauro Capsules (half size).

Eli Lilly and Co.; Alcresta Ipecac Tablets.

Merck and Co.; Cantharidin, Merck.

H. K. Mulford Co.; Luetin.

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The Phylacogen Treatment of Pneumonia

As every physician of experience knows, the mortality in pneumonia is very high, as compared to that of the average infectious disease. The dream of scientific men that a specific for pneumonia would some day materialize has not yet become a fact, and it is probable that it will not for a long time to come. In the opinion of many advanced members of the profession Pneumonia Phylacogen, while not a specific, is the nearest approach to such an agent. Certainly some remarkable results have followed the use of this product in many serious cases that have been reported in recent months—cases in some instances that had failed to respond to conventional methods of treatment. Physicians owe it to their pneumonia patients to inform themselves with respect to the merits and accomplishments of Pneumonia Phylacogen. Ample literature on the subject is available. It will be cheerfully sent to any practitioner who will address a request for it to Parke, Davis & Co., the manufacturers of Phylacogens, with home offices and laboratories at Detroit, Michigan.

Inherited Syphilis.

S. F. Stoll, Hartford, Conn. (Journal A. M. A., Oct. 31, 1914), has studied late manifestations of inherited syphilis with special reference to arterial disease in thirty-two families—sixty-eight individuals—parents, etc., and family histories are given in some cases. He says we must accustom ourselves to think of syphilis as a family disease, as it is rare that only one member is affected. Over half the children born of syphilitic parents, who survive infancy, give a positive luetin reaction, though there is often nothing in the appearance to suggest lues, and the symptoms are indefinite and often misleading. In nearly ninety of those with obvious ailments, the Wassermann or luetin test is positive. The importance of a complete family history cannot be too much emphasized, as he thinks it probable that syphilis may be transmitted to the third generation. Some cases of neurasthenia are due to congenital lues and recover under specific treatment.

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WANTED—Location—Association with an established physician or contract by a young married Kansas doctor. 1913 graduate, 32 years old. Capable and efficient. For past year has been president County Society. Address Journal Kansas Medical Society, Topeka, Kansas.

—————R—————

FOR SALE—A 16 in. S. W. Radiographic Special X-Ray Coil complete. Dr. O. P. Brittain, Salina, Kansas.

—————R—————

FOR SALE—Static X-Ray machine made by National X-Ray Co., Topeka, Kansas. This machine is new, never having been used. A bargain. Ed. C. Jerman, R. R. No. 1, Topeka, Kansas.

—————R—————

FOR SALE—A Victor Finsen Light Apparatus. Will sell cheap. Address Journal Kansas Medical Society, Topeka, Kansas.

—————R—————

FOR SALE—A Jerman Static Machine, in good condition, and some new office furniture. Address Mrs. J. B. Armstead, 1006 Morris avenue, Topeka, Kan.

THE JOURNAL

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No. 3

ORIGINAL ARTICLES.

A Few Remarks on Retrodisplacement of the Uterus.

By LLOYD A. CLARY, M. D., Hutchinson.

Read Before Kansas Medical Society, Wichita, May, 1914.

In treating the women who come to a doctor's office it is rather surprising to note the number of cases wherein some form of retrodisplacement of the uterus is present. Watch your cases for a year and you will find a large number of those having pelvic trouble who have a uterus retroflexed or retroverted. I do not mean that every case of pelvic trouble is thus complicated. Neither do I mean that all these cases have severe symptoms. I simply mean that this condition of retrodisplacement does exist, that it must be dealt with, that it is one which has caused much study and that it is well worthy of our attention.

Whole text books have been written on mal-positions of the uterus and the correction of these conditions. Thousands of pages of matter have been printed telling how to deal with this trouble that women have. Many operations have been devised to correct displacements of the uterus. Numerous methods for handling these cases have been brought forward. However it is not my intention to give you a text book review of this subject. I simply wish to bring out a few points that have impressed me in my own work. I am not going to discuss the best operative methods in these cases as their number is legion and each surgeon will work out a more or

less individual way of handling his cases.

Of the patients who come in for a vaginal examination we find a large number with some retroposition of the uterus; at least that is my experience. These patients seek relief from pain, "bearing down" sensations, backache, leucorrheal discharge, general run down condition, nervousness and all the various symptoms that accompany what is so commonly called "female trouble." Of course, all these symptoms cannot be laid at the door of simple, uncomplicated displacement of the uterus. Still, in the great majority of cases, the displacement requires attention. On examination we find that operative procedure is the only sensible course to pursue in many instances and we so advise the patient. If she can be convinced that this is the thing to do and if we can get her to go to the hospital and have herself properly taken care of, all well and good. But many women will never consent to have an operation performed unless it is so imperative that they are forced to submit. The cost of operating also is one of the reasons why some refuse to consider such a method of treatment. Then there are some cases of such slight displacement that an operation is in no wise necessary.

Here we have a group of cases that I wish to speak of—namely those that we must deal with in some other way than by operation, or that we must neglect to treat at all. It has been only a few years ago that I actually turned down a patient who came to me with the request that I fit a pessary. I argued operation so strongly and knew so little of the real

value of the pessary, when properly applied, that this patient slipped away and likely went to some doctor with better sense than I had who inserted a pessary, collected his fee and helped his patient. I am aware that some surgeons ridicule the pessary as a makeshift and take the attitude that, so long as we know how to operate successfully for these conditions, it is wrong to do otherwise. I grant that there is some reason to think that way. Still the class of patients I have spoken of—those that we cannot operate on—must be looked after by some one. If you don't treat them and give them relief from their symptoms they will go to someone who will.

Now there are many cases of retroposition of the uterus that are amenable to office treatment. First there is the case in some young woman who has possibly recently had a miscarriage and whose uterus is retroverted in the first degree. Generally a few treatments will replace that uterus without much trouble and the patient is saved the cost of an operation, to say nothing of the saving in suffering. Should she need a curetment it will be possible to straighten up her uterus when that is done. Then there is the second degree misplacement where the uterus is movable, but cannot be readily returned to its natural position. This case requires more patience in treatment, but it generally can be remedied without resort to operative means. These cases are comparatively simple and possibly present little chance for argument though some might favor operation in the class last mentioned.

But there is still a third class of cases that we see—those called retrodisplacements of the third degree. Of course there is considerable variation in these cases and, as found all along the line in medicine, cases have individual features and we must recognize the characteristics of each case if we are to succeed in treating it. In some of these cases of pronounced retrodisplacement the uterus is movable and by repeated effort it can be placed

back where it belongs and coaxed to stay there by the wearing of a pessary for a variable length of time.

When such a case presents itself the first thing to decide is what method we are to follow. After making a careful examination we make up our minds whether such a uterus can reasonably be expected to regain its normal position without operation. Here is where we will all probably differ somewhat because no two men have just the same training or experience and their mode of thought is bound to differ. The man who thinks only in terms translatable into operating room procedure will at once advise operation in such a case. On the other hand the man who has had success in the non-operative treatment of this class of cases will make the effort to cure without operation. Right here is the principal point I wish to make. It is my contention that a large number of such cases can be cured by office treatments if the patient is willing to submit to a course long enough to accomplish the desired result. I believe that we should not despair of attaining such result without making a strenuous effort. It seems foolish to me to flatly refuse to do anything but operate or to minimize the value of local treatment to such an extent that your patient, if she can not or will not have the operation, goes away discouraged and under the belief that non-operative relief can not be obtained.

Before I cite one case in particular that strikingly illustrates the great value of office treatment, I wish to say a word as to pessaries. As I said before I used to think that these things were of little or no value. I now think differently. When we study the anatomy of the pelvis and the causes of retroposition of the uterus we find that the pessary is an instrument constructed on rational lines, with a definite function to perform and that it will do what it is designed to do. Some have a hazy idea that a pessary is made to "hold up" the fundus uteri or to support the uterus as a whole. It is true that a pessary properly fitted will "hold up" the

uterus provided that uterus is placed in good position before the pessary is inserted. It may even give some slight support if the uterus is not replaced. But it is not true that the pessary will push the retroflexed fundus forward and will hold it there by pressure on the fundus. The pessary exerts its greatest influence in holding the cervix back. As the uterus turns upon itself as upon a pivot the simple backward motion of the cervix has a tendency to cause the fundus to move in the opposite direction, namely forward where it should be. Thus the pessary keeps the uterus in its proper position by holding the cervix back. I believe the pessary is bound to be used more in the future than it has been the past few years. There was a time before pelvic surgery reached the place it now holds when pessaries were used freely. Thousands of women were relieved of their trouble by wearing pessaries. You will note that our writers on gynecology are again giving considerable space in their books to pessaries these days and I believe pessaries are here to stay. I speak thus at length of the pessary because it is the basis of our means for non-operative control of retrodisplacements of the uterus and is the one satisfactory means to employ to keep the uterus in place after we have gotten it there.

Now let me cite a case to prove what can be done without operation. This case is extreme, but any of us may have a like condition to deal with any time. This patient had over exerted herself lifting her baby and doing her housework after confinement some two years before and finally became so nervous and run down, suffering constant backache, that she sought relief. The uterus was retroverted with slight retroflexion, the fundus resting in the hollow of the sacrum. It was bound down so that it was impossible to move it at all and the pressure and weight of the organ in the pelvis had created a sensation she attributed to hemorrhoids. I told this patient after I had examined her carefully that I did not believe she would find relief without operation. She

was very much opposed to any operative procedure and we finally decided to attempt a correction of the difficulty by local measures, she agreeing to stick to her treatment until I told her there was no hope for success or until success had been attained. We began in this way with little hope for success on my part, but with much determination on the part of the patient to bear the pain and unpleasantness of her treatments. It was a good while before there was any appreciable change in position of the uterus; raising the fundus more than a very small fraction of an inch was impossible and every effort made to raise it was excruciatingly painful to the patient. Still each treatment, though painful, relieved the constant backache and the patient returned home feeling better. If anyone had told me it would ever be possible to get that uterus up out of the hollow of the sacrum without the aid of an anesthetic I would have told him he did not know what he was talking about. But the patient was satisfied, felt much better and was determined to be cured without anesthetic or operation. Finally I succeeded in getting the uterus in place and then it became a task to keep it there. The fundus would tumble down almost as soon as it had been raised. But eventually, seven months after treatment began, the uterus in this case remained where it belonged, held there by a pessary.

This patient was extremely anxious to become pregnant. It was only about a month after the uterus had reached the stage where a pessary held it up properly and with no trouble that she became pregnant. However, it was necessary to continue the use of the pessary until she was nearly four months pregnant before it could be permanently removed.

Now this case, as I said before, was an exceptional one. Few patients have determination enough to stay with a course of treatment long enough to accomplish such good results. Still that these things can be done is proven most conclusively to me by such an actual case in practice and I am firm in the belief that many cases

which at first blush would appear hopeless for any but operative treatment can be cured in another way.

—————R—————

Appendicitis in Children—A Surgical Problem.

By E. D. EBRIGHT, M. D., Wichita, Kan.

Read Before Kansas Medical Society, Wichita, May, 1914.

I should feel no hesitancy in presenting to you a paper upon such a hackneyed subject as appendicitis in general—for, though much has been said and written upon the subject, and we think it worn threadbare, we still are so far from a correct understanding of the disease that often we are compelled to listen while men in a medical society discuss the question, whether appendicitis is a medical or a surgical condition." I certainly have no apologies to offer for presenting to you a paper upon the subject, "Appendicitis in Children." My only feeling is a consciousness that I am dealing with a subject so very vital that it should receive the most honest and earnest attention of every one practicing the healing art; and one that heretofore has not received the attention its importance warrants. Some years ago I received a lesson on this subject I shall never forget. We are but children, all of us, and lessons taught by illustrations, pictures and personal experiences make a much more permanent impression on our minds than do abstract text book discussions, theories or statistics. A young girl, twelve years of age, of my own family, who occupied a large place in my affections, died from appendicitis; and the physician in charge neither thought nor suggested that it was other than a case of ordinary bowel complaint. Not until the child was beyond all possible help and counsel was called were the parents aware of the fact that appendicitis, going on to pus formation and peritonitis, was the cause of their child's immediate and certain death. As I have said this case made a profound impression on me and I went home and to my work looking for appendi-

citis in children; and with the result that within the next few months I saw four cases in children under ten years of age; the diagnosis in each verified at operation; and all belonging to that class of cases that heretofore I had been calling auto-intoxication, ptomain poisoning, cholera morbus, infantile colic, acute indigestion, summer complaint, etc.

Since then I have seen a number of such cases and always I have had an easier conscience and a larger respect for myself when I have made my diagnosis of appendicitis than formerly I had when I was making my indefinite diagnosis of bowel complaint of one kind or another. The results have been equally as satisfactory to the patients as they have been to myself, for they have recovered instead of dying as some of them did formerly from their cholera morbus or acute indigestion. I have never yet diagnosed appendicitis in a child under fifteen and operated that I did not find the appendix to be at fault.

You will question no doubt the statement, unless your attention has been called particularly to the subject, that a very large majority of the cases of appendicitis that present themselves occur in patients under fifteen years of age. Statistics prove this beyond question; and a study of the development, histology and anatomical peculiarities of the child's caecum and appendix will show readily why this should be so. Such a study also will prove conclusively the correctness of these two propositions, viz. That in children appendicitis is always a surgical disease and demands surgical treatment; that Ochsner's starvation treatment as a treatment *per se* has no place in dealing with this disease; that procrastination for any reason whatsoever is not wise; and that the treatment is not to be influenced as in the adult by the division of the disease into arbitrary periods of twenty-four, thirty-six, or forty-eight hours. And second, accepting these facts, the imperative demand for early and certain diagnosis.

During the sixth month of intra-uterine life, the caecum rotates from the left side

to the right side of the abdomen and descends into its future home the right ilias fossa, though this descent at this time is not complete. At this time the caecum and the appendix is practically one organ, being continuous and in the shape of a cone. It is said that in two per cent of all cases this condition persists and we have what is called an infantile caecum. I have never seen such a case and have no doubt but that this per cent is altogether too great. There is no lymphoid tissue in the appendix at this time and it is not until the child is one year of age that it develops. This gives us our reason why the disease is very infrequent before this time. After one year, however, this tissue becomes predominant, and the appendix is practically a finger of caecum pushed out and its interior one large Peyer's patch. This lymphoid tissue is responsible for our many cases of gangrenous appendices that occur so suddenly and without warning, and are so very dangerous. From the third year the relative amount of lymphoid tissue gradually lessens until the age of fifteen when the appendix becomes the adult organ. At birth the appendix has not held its relative size with the caecum and begins to show itself for what it is, a rudimentary organ, though at this time it is one-tenth the length of the entire large bowel.

In early life the caecum with its appendix is very movable. It has no fixed position and may be found almost in any part of the abdomen. The mes-appendix is very short, much more so than in adult life, and this fact has much to do with the frequency of the diseased condition in children. When the caecum is empty the appendicular orifice is open, but when distended with gas or by fecal matter the appendix is kinked, the orifice closed and infection and inflammatory troubles are thus invited. One other anatomical peculiarity so very important that it cannot be over estimated is the shortness of the omentum. This structure in infancy reaches but an inch or so below the trans-

verse colon and it elongates very slowly. This absence of omentum prevents the formation of an enclosing wall around an inflamed appendix and the protecting of the rest of the abdominal cavity. The blood and the nerve supply do not differ from that in the adult.

Briefly recapitulating, the excessive lymphoid structure of the appendix, its relatively large size and functional activity, the shortness of the mes-appendix, and the absence of the omentum are the elements that enter into the question and must be studied and understood if one would meet intelligently the conditions that may arise. Other etiological factors entering into the question during this period of life are indiscriminate eating and the catarrhal and exanthematous diseases. The relative number of males and females attacked remain the same in the adult and for the same reasons. When the resistance of this vestigial structure is lowered by grippe, scarlatina or intestinal diseases of whatever nature, it is plain to see how it become the easy prey of the colon or other bacilli. Fecal concretions are often found, but in the opinion of the writer they are oftener the result rather than the cause of the disease. Traumatism is frequently the causal factor and sometimes intestinal worms may be the starting point of the trouble. The micro-organisms most often responsible are the colon bacillus, staphylo—strept—and pneumo-cocci. In gangrenous cases anaerobic microbes may be present.

Clinically the cases may be divided into acute, chronic and suppurative, but a satisfactory classification is very difficult. The most serious cases are the acute perforative ones without walling off of the peritoneal cavity, and the perforative gangrenous ones.

Symptoms: The cardinal symptoms, pain, nausea, vomiting, rigidity of the right rectus muscle and temperature, are present as in the adult, but they are influenced by the age and unfortunately do not always give a correct index of the conditions present. Practically the same objective symp-

toms may indicate a mild pathology of no seriousness whatever, or may be indicative of an infection so intense as to cause death within twenty-four hours. This uncertainty of outcome is mainly due to the anatomical peculiarities already stated, and furnishes the real justification, if there be any, for this paper. The pain is always the first symptom, but may be mistaken for colic or indigestion. It may be slight or intense but always will be found on careful examination greatest at the external border of the right rectus muscle, not quite so far to the right or as low down as in the adult. It may be present, however, in the pit of the stomach or at the umbilicus. The vomiting differs from that of indigestion in that it follows the pain instead of preceding it, and is not so sudden or severe as the vomiting of indigestion. The pulse will be quickened from 140 to 160 per minute. A steadily increasing temperature with increased pulse, slight vomiting, repeated several times, rigidity of the right rectus muscle and local tenderness will be the symptoms that will put us on our guard. Constipation rather than diarrhoea will be the rule. In conjunction with the clinical symptoms, the blood count may be very helpful.

The diagnosis in the typical cases will be easy if one is on the watch for the disease and remembers the fact—the same in the child as in the adult—that seventy-five per cent of all abdominal troubles referred to the stomach is in reality due to the appendix. Every abdominal trouble in the child should receive a very careful examination, the belly being bared and the legs flexed. When a child in good health is suddenly attacked with pain in any part of the abdomen, followed by vomiting and local tenderness, we should put the patient to bed and watch very closely for a few hours and not assume that we are dealing simply with indigestion or the bellyache.

The differential diagnosis must be made from the following diseases: acute indigestion, cholera morbus, colic, enterocolitis, intestinal obstruction, intussusception, vol-

vulus, fecal impaction, peritonitis acute or tubercular, cholecystitis, kidney colic, psoas and iliac abscess, hip joint disease, Pott's disease of the spine, pneumonia, pleurisy, bronchitis, hernia and undescended testicle. I shall not take your time to more than mention the different conditions that may cause some serious thought before the diagnosis is finally arrived at, but simply say, when called to see a case each one of these diseases should be run over in the mind of the physician, and in all but a few cases the diagnosis may be made.

Prognosis: Under three years the prognosis is very bad because of the delay in diagnosis. I hope that soon, with a better understanding of the nature and frequency of the condition, this high mortality will be very materially lessened. Over three years, the prognosis is much better, due to the fact that fewer mistakes will be made in diagnosis and to the further fact that the little patients will stand operation very much better than during the first year of life. At this time operation will save most of the cases if done in time. Above seven years, the mortality will be less than in the adult if the proper treatment is instituted early.

Treatment: Operate, diagnose early and operate; use sense but operate; this is a surgical disease, so operate. No starvation treatment because the crying for food and the struggling that will accompany lavage is worse than the peristalsis, but operate. Operate before perforation, operate after perforation and before peritonitis has developed. Operate after peritonitis has developed, but operate. The doctor's success in the treatment of this condition, his mortality rate, will depend on his early diagnosis and his ability to make the parents accept his diagnosis and acquiesce in his proposed treatment. Too many of us approach a patient or his friends in the attitude of "Now this is the condition, and these are the symptoms present, and with your permission I will do so and so." If every case of appendicitis were operated as soon as it is possible to make the diagnosis, the mortality would be practically

nil. If every case were operated during the first twenty-four hour period, the death rate should not exceed one per cent. If no cases were ever operated the mortality rate would be 17 per cent. Therefore it is up to the physician to say in which of these mortality limits his patients shall fall, and what shall be their chances of complete recovery. And all this is even truer in children than in adults. And again I say, diagnose early and operate.

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Splenectomy With Report of Case.

By PAUL CHRISTMANN, M. D., Parsons.

Read Before Kansas Medical Society, Wichita, May, 1914.

Splenectomy which is excision or extirpation of the spleen, is now the operation of choice in trauma from contusion, from gunshot or stab wounds or from rupture when the organ is so extensively damaged that suturing and packing with gauze can not be relied upon to check hemorrhage.

Among other causes, which render the removal of the spleen perfectly justifiable, may be mentioned, Banti's disease, where splenectomy offers the only hope of cure; wandering spleen which is diseased; torsion of the pedicle of a movable spleen, the blood of which has become seriously affected by strangulation; a hypertrophied wandering spleen which cannot be retained by splenopexy; prolapse with laceration and infection; simple hypertrophies even of unknown origin, not associated with grave blood disturbances, but which give distressing abdominal symptoms.

We should always bear in mind that splenectomy should not be performed for leukaemia, or for hypertrophy, which is only a local symptom of some grave systemic disease.

In considering splenectomy for any particular patient, the surgeon must not be too easily influenced by statistics, but he must have a thorough knowledge if possible of his patient's physical condition and this usually can be obtained by a careful consideration of complete history of patient and thorough physical examina-

tion. Laboratory findings by an expert pathologist or microscopist are most helpful in assisting to a correct conclusion of our deductions.

The chief dangers in operations on the spleen are hemorrhage and shock. The death rate will largely depend upon the stage of the disease at the time of operation and the severity of the symptoms, recent hemorrhages, preparatory treatment, the presence or absence of adhesions and the experience and skill of the surgeon.

Post operative complications recorded are, aside from sepsis, tetany, thrombosis of mesenteric vessels causing gangrene and septic peritonitis, convulsive fits.

Johnston's (*Annals of Surgery*) as late as 1908 report a mortality of 19.6 per cent following operation on the spleen. However, we should not rely too much on statistics as more favorable results than failures may be reported.

In operating for splenectomy the patient is prepared in the usual way for laparotomies. After the patient has been anesthetized an incision is made through the outer margin of the left rectus muscle. This incision should be large enough to permit free access to parts, if necessary it may be enlarged by a cut at right angle near the costal margin or even some of the costal cartilages may be resected to give more space. If adhesions are large and very vascular they should be clamped before severing. The surgeon must do his work quickly but very cautiously, for frequently the relation of parts varies extensively and may be concealed by adhesions. Having detached the spleen from surrounding organs up to the pedicle the surgeon must treat this part with the greatest of care and respect, for failure or success largely depends upon the treatment of pedicle. Traction on the pedicle may produce severe shock during the operation. It should be clamped, at the same time being sure to avoid the short branches of splenic artery to the stomach, then cut between clamp and spleen. If possible avoid bruising or tearing of the tail of pancreas and release the spleen of other

of pancreas is injured during operation or pus be encountered drainage should be made through the loin. The abdomen is then closed in the usual manner following laparotomies. The drain can be removed the third day or as late as the morning of the fourth day. Its continuance depending on conditions found when removed. A few days after the operation the patient may complain of aching or pain in the long bones of the body. This is supposed to be due to a compensatory activity of the bone marrow in supplying the deficiency in number of lymphocytes and other blood activities performed by the spleen. As a rule this is inversely proportionate to the degree of splenic degeneration at the time splenectomy is performed. For these compensatory changes have been gradually taking place as the splenic degeneration progressed.

The case which I report at this time is that of Miss J. J. I first saw her in consultation with Dr. O. H. Ball on April 19th, 1913, and again May 12th, 1913. She gave the following history:

Family history: On father's side of the family her grandfather was killed in the Civil war, healthy. Grandmother died at the age of 84 of old age. She had been very healthy through life. On mother's side of the family, grandfather died of pneumonia at the age of 74, previous health good. Grandmother died from dysentery at the age of 47, previously healthy. Her father is now 64, is and has been a man of robust constitution. Her mother is 61, she is in good health. There is one brother, 33 years of age, in good health. She has four sisters ranging from 24 to 40 years of age and all in good health.

The patient is a female 29 years old, American born but of Scandinavian descent. At the age of 7 had scarlet fever, then chicken-pox, and also pertussis when a child. Apparently uneventful recoveries. When 14 had facial paralysis on right side lasting about three years. At 26 years of age she had measles. Her occupation was that of postmistress, in a town of four hundred population, for five years, ending

when she contracted typhoid fever at the age of 28. The fever ran its usual course. On the tenth day of fever she developed a typhoid spine in the cervical region, which attachments and remove from abdomen. The pedicle is then tied with interlocking ligature. Some prefer, and some times conditions necessitate, tying pedicle first and then enucleating spleen and removing from the abdomen. Traction on the splenophrenic ligament may seriously impair respiration and must be avoided. If the tail resulted in a complete paralysis of voluntary muscles below the face. Some trouble with bowels and bladder at this time also. About two weeks after the development of typhoid-spine, motion returned in part to muscles of the neck and to the left hand and forearm. About ten weeks after attack gradual restoration of motion to other parts. Immediately following recovery from typhoid fever the patient had symptoms of aching and pain in splenic area in front and side, very rarely extending to the back. This at times was so severe that morphine in one-fourth grain doses hypodermatically was necessary to relieve patient. Hot fomentations as a rule were sufficient. In November, 1912, chills were of daily occurrence followed by a temperature of 104 to 106 and pulse of 110 to 120, then profuse sweats. This condition of affairs lasted for a couple of weeks and then chills occurred only once or twice per week until in the latter part of March, 1913, when they became more frequent. These chills did not seem to be affected by quinine or any of the anti-malarial preparations.

On physical examination we found a lady very much emaciated and lying in bed with knees drawn up. She was pale, apparently from anemia. She was five feet two and one-half inches in height, weighing 74 pounds, pulse 108, temperature 102, head and face negative, slight enlargement of thyroid, chest negative. In abdomen a distinct enlargement could be seen in left side. On palpation a tumor mass could be felt below the left ribs and extending on the left side about

two inches below the umbilicus. There could be felt a notch at the lower margin of tumor. Some fluctuation could be elicited; tumor slightly moveable. Percussion revealed dulness over all of left hypochondrium, a part of left epigastric region and left half of umbilical region and extending around to the post lumbar and infra scapular space. Pelvic examination, negative. Urine analysis, both microscopical and chemical, negative. Blood pressure, 180 M. M. Blood examination by Dr. J. G. Missildine was reported to be: hemoglobin index 60 per cent, red blood cells 3,500,000. Many nucleated red cells, many poikilocytes, white blood cells 28,000, lymph, large and small 3,000; large mono 150, polymorphonuclears 24,700. Diagnosis was made of cystic spleen with sepsis coexistent.

Patient operated May 15th, 1913. After abdominal incision was made it was discovered that the colon, splenic flexure especially, had been pulled down and was attached to lower part of tumor by a fistulous sinus possibly two inches long. This was well surrounded by strong adhesions. This sinus was clamped, ligated and severed, ends cauterized and the opening leading into the bowel closed. The adhesions about the entire tumor were very dense, indicating the extensive perisplenitis. As the colon had been so displaced I determined to sever the meso colon on the left side and allow more working space. After this the adhesions were more easily reached. Another advantage was gained, for after removing the tumor and inserting drainage gauge through the loin, with this meso colon and colon it was possible to completely cover the denuded surfaces posteriorly including the ligated end of pedicle, thereby walling off this area which would be filled with exudate, from general peritoneal cavity.

The operation occupied one hour and ten minutes, one-half pound of ether was used. Patient did not suffer shock. When returned to bed after operation pulse was 114. Recovery uneventful. Patient left hospital the fourth week. Her pulse at

present is 66, temperature normal, blood pressure 140. She has increased in strength and power of locomotion so that she can now walk across the room without artificial assistance and goes about where she pleases on crutches. Her gain in weight is about 18 pounds.

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Would the Medical Profession Suicide?

By T. A. STEVENS, M. D. Caney, Kan.

Read Before Kansas Medical Society, Wichita, May, 1914.

"In the beginning God created the Heavens and the Earth." Then He made man, and ever since the Doctor has been in demand. Since the beginning of the world nothing has offered greater permanency for any profession or calling than that of Medicine.

It is our opinion that the public and their representatives in the State Legislatures and the U. S. Congress do not properly appreciate the great work and the value of that work done for humanity and its modern civilization. If not, there is a cause and there should be a remedy.

While there are other causes, no doubt, the profession itself furnishes the principal cause. The American Medical Association has allowed its dissensions to get in the public press.

The habit of doctors speaking ill of members of the profession to the laymen is the rule rather than the exception, and the reverse is so uncommon that the public virtually has our word for it that we are grafters and confidence men. Lack of good sense and business acumen has caused the public to disrespect the most noble and useful calling of man. Consequently christian science, osteopathy, chiropractic and any and all quackery from Quackdom, is looked upon with favor by entirely too large a portion of the people, not all ignorant people by any means, who are arraigned against us and for quackery—intelligent people being in the majority. The public cannot be expected to respect any profession more than that profession shows respect for itself and

that respect must begin and be practiced by the unit in the local communities.

Business men everywhere, whether of the railroads, manufactories, gas and oil companies, bankers, or merchants, have long since quit cutting each other's throats. There are no Mexican methods used or slandering in order to put the other out of business. Business sense forbids it. The ministry and the law professions have learned enough to quit fighting their fellows. They stand by the unit as well as the profession as a whole. And each especially the law, has become more profitable and respectable. The medical profession has yet to learn business sense. Will it ever profit by business experience?

Years ago jealousy made me blind to the virtues of other physicians. I have long since gotten over that and now when opportunity offers, I do not forget to say something good for a fellow doctor.

Ninety-nine times in a hundred our opinion of our competitor is influenced by prejudice, and, in many instances, he is the better man of the two.

We should stop trying to make over the other fellow. Take him as he is and recognize his virtues and forget his faults. Not long since I visited a patient in another town with one of the town's two doctors. He was telling me of the many faults of the other doctor and they were grievous ones too. I asked him if he would have the doctor overcome all of those faults and be the opposite, a perfectly well-equipped physician? He answered, "Most certainly I would." I told him that he would then be compelled to find another location, for he could not possibly compete with such a man, that he should consider himself fortunate that he had the man he described to compete with.

I once knew a man practicing in a town where there were four doctors. People would watch to find that man sober and if they found him at all straight he got the call every time. Now, if that man had been all his fellows seemed to desire, he would have done all the business. As it was he left business for the others.

When we desire the other fellow to be perfect, I suspect that we are either unwise or dishonest. We should not expect men to be perfect, they may have faults and yet have many virtues. Virtues are not numbered by two or three figures. A lamp post possesses no vices and some of the most valuable men in the world have been guilty of many. Few men are all good or all bad. We should endeavor to improve ourselves and be, at least, content with what the other fellow is and does.

The American Medical Association has done a wonderful good work in organizing the medical profession. It has practically united all schools until there is among intelligent educated men only one kind of a doctor, that is a *physician* and *surgeon*. In spite of the many bad things that may have been said about the *Editor* of its *Journal*, it has been most ably edited. Even if the organization has been ruled by politics and it was a mistake to place its management in the hands of a few, its power for good may be much better than if those who find fault had governed.

Dr. G. Frank Lydston and others remind me of the insurgents and reformers in state and national politics who, when given an opportunity, sometimes build up a more formidable oligarchy than their predecessors.

Once I asked an intelligent man of wealth and distinction, living in a neighboring city, who I knew had employed irregular practitioners to treat members of his family, why it was? He said, "look at the medical men of this town, each says the other is a quack, therefore, I avoid them." Now, what I want to say in this paper is that the physicians in the local communities have the key to the situation and the medical profession depends upon them more than upon all else for its respectability and standing with the public.

Would the Medical Profession Suicide? It would if it could; but it cannot. No. The medical profession has come to stay. "Other professions may lose their utility in the progress of things, but the medical

profession is the one indispensable thing. The religious devotee may forget the priest, and the altar; the lover may forget his impassioned vows; the mother may forget her babe after it is delivered, but man smitten with pain will not forget to seek relief."

—R—

The Doctor's Business Methods.

By DR. MAX MILLER, Newton, Kansas.

Read before the Kansas Medical Society at Wichita, May, 1914.

I have a proverb that I sometimes spring which reads as follows: "A man usually talks most about what he knows least of," and in that case you are in for a long winded paper. As a physician you will sustain two relations to your patients. First, during his sickness you will feel a humane interest in him and a scientific interest in his disease. Give him all the ability you possess and employ whatever remedies will be most surely and most safely and most rapidly beneficial. To this you could add a little sympathy. Later, when this fellow has gotten well or dead, your interest, skill and compassion is no longer required. Then is when you enter on your second or business relation. And then, unless he is very poor, you should secure a fair and reasonable remuneration.

Business is business, you must eat and you must be clothed and you must support those dependent upon you just as other people do. Every person naturally looks to whatever work he follows for support. Then do not let false delicacy or out of place politeness interfere with your business rules and money matters.

The practice of medicine is as legitimate a brand of human industry as any other. In fact no one earns his living more fairly and often more dearly than the physician. And when you consider the exposure to the elements, to contagion and infection, I think there are few of the crafts that require more sacrifice of comfort and safety than the practice of medicine, and both common sense and common prudence requires that you should try to provide for

yourself and for those dependent on your labors for support. This you cannot do unless you have a business system, neither is a professional man at his best if his mind is depressed and temper vexed by the debts he owes. In this sordid age neither untiring study nor unselfish devotion to your profession can get you past the high cost of living, or teach you how to live on wind, or lift you above the demands of the tailor, the instrument man, or the book agent. These gentlemen will not take your reputation for working for nothing for their pay. Of course, it is a pleasant thing to be very popular, but it won't pay rent, buy your books or gasoline. The accumulation of money is not the primary nor the chief object in the practice of medicine, but there always has been and always must be a money feature. In your money affairs be systematic and correct. The nearer you approach the cash system the better. Frequent accounts are the best for the doctor, if he renders his bills promptly it teaches his people to look for them and prepare to pay them, just as they do their other family expenses. Besides, while you are waiting your patient may lose his job, or he may leave town, and again if he pays promptly, he will feel free to send for you again and there is a traditional charm, that some people believe in, that they will surely get sick soon after settling an account in full. Again, if you present your bills while they are small, and your services can be remembered, they are more likely to be paid and without dispute. Another mistake we make is to have a business system and then have a favorite few that you do not apply your system to. They invariably mention the fact that their doctor never sends them a bill only once a year and often you will find they are just as hard to get the money from then, as some of your other patients and a good deal more likely to dispute the bill.

The business of the world is now done nearer on the cash basis, instead of the long credit plan, and we should do our share toward breaking up the unjust cus-

tom that physicians used to follow, either through carelessness, or to maintain the favor of patients, of waiting six months or a year after services are rendered before sending a bill.

If a physician attends a person, say in February and sends his bill in March or April, it seems more like current expenses, and as though the doctor lives by his practice, and is apt to be paid promptly, where, if you delay sending bill until July, or January and then send it headed by an apology, "Bills rendered January 1st and July 1st" as an excuse of sending even then, or that you sent it out, just because you were posting your books and not from any desire for money, he will probably let it go another six months. He will be as generous as the patient, when his doctor said to him, "John, this is getting to be a very old bill, John I'll tell you what I will do, if you pay this bill now, I will throw off one-half of it." His answer was, "Well, Doctor, I never allow anyone to be more generous than myself. If you will throw off one-half, I will throw off the other half and we will call it square."

But in case you do send bills out January 1st and July 1st, leave off the "Bills rendered January 1st and July 1st," and in place head them, "All bills collected January 1st and July 1st."

A great deal can be done to help collect bills by a little tact in making them. The very best time to talk business and have an understanding about your bills with doubtful, or strange patients is at your first visit or at the first office call and the best time to judge peoples' true character is when you touch the nerve that runs to their pocketbook.

Often mills, factories and other corporations, where employees become injured, will send indirectly for a physician and in one way or another create the impression that they will pay the bill. But when the time comes to liquidate, they have various excuses, usually that they have had to pay the expenses of his keep and that is all they can afford. Some of these corporations now carry insurance on their men

and in case of injury they expect the company to pay the doctor's bill. But in case the corporation has no such arrangement you had much better have an understanding with the management where you are to look for your pay.

For the same reason when you are sent to attend servants, nurses, or other poor relatives, or guest in a family, find out who the bill is to be charged to when the service is rendered, or on leaving the house is the best time to make the inquiry, not after the patient has recovered. I do not think that the mere fact of a man calling you to attend a patient makes him legally responsible, unless he agrees to pay and I have been told by an attorney, when they do that, make your charge to them.

If you will take these precautions, it will prevent many misunderstandings and save you several dollars. It isn't how much you book so much as how much you collect. If you do not insist upon the payment of your bill you can never separate the chaff from the wheat. When a new family employs you make special effort to collect the bill just as soon as gentility will allow and especially if the attendant just ahead of you has been a slow collector or no collector. Send your bill first as a test and, if they object to you on that account, the sooner you part company the better it will be for the doctor.

When patients ask you what their bill is, answer promptly a fixed amount. Do not hesitate, or guess at it. Say one dollar or ten, without any apology or explanation. A good reply if they object to the amount is to say, "that's what I charge everybody."

Patients will sometimes say, "Doctor when shall I pay you," or "Shall I pay you now." I usually say, "Well I usually take money whenever I can get it," or I sometimes say, "if you want to you can pay it now." It is a mistake to say, "Oh, any old time will do," or "it make no difference when." This you will find is expensive modesty.

Now if you will have some fixed business system, you will soon have a few dollars to lay away for a dull day and they are

very likely to come to most old doctors. And just a few words as to how you will lay them away. Real estate is usually regarded as one of the best places to put your surplus dollars. If it is a good interest getting proposition that will keep up taxes, repairs and some interest, it is a very good place to put your surplus.

Vacant real estate unless a chance to turn readily, or improve soon, is like the horse you do not need, it will soon eat its head off. Farm land, business houses, small residence houses, is a fair way to invest money, but I am inclined to believe that well secured paper in the way of municipal bonds and similar paper, is about as satisfactory a way to lay away money as any. Of course, it does not give you any chance to display your good judgment in investing for advance in price, but the thing to let severely alone is the promoter, the gentleman who wants to afford you a special favor by letting you in on the ground floor. I remember, not long ago, seeing in one of our medical journals a doctor's estate consisting of \$200,000 worth of this kind of bonds on which his widow had not been able to realize one cent. We doctors are looked upon as easy and we are never passed by these gentlemen.

Tests of Liver Function.

A. M. Chesney, E. K. Marshall, Jr., and L. G. Rountree, Baltimore (Journal A. M. A., Oct. 31, 1914), report the results of an investigation undertaken to determine the degree and frequency with which functional changes can be demonstrated in anatomically diseased livers; the clinical types of liver injury in which these functional changes are most marked, and the diagnostic and prognostic value of the changes. The various tests are described, and their value estimated. The authors conclude that outspoken changes in liver function can be demonstrated in most cases of advanced liver cirrhosis, in markedly congested livers with myocardial insufficiency, in cancer and syphilis of the liver,

and in conditions of cachexia, with marked anemia. They are most marked in cirrhosis, neoplasm of the liver, and in cachectic states of the liver. In chronic passive congestion, functional changes have not been frequent or pronounced. In most of the tests indicated either a decrease or a normal function, the findings are in agreement, but lack of harmony is striking in other cases. As regards the relative merits of the tests, the authors have the impression that the determination of the phenoltetrachlorophthalein excretion, the fibrinogen, and the nitrogen partition in the blood and urine, are of decided value in revealing the presence of, and to a less degree the extent of, functional involvement, while the demonstration of a fibrinolytic ferment is of decided diagnostic importance, while that of the sugar tolerance, and that of the lipolytic activity of the blood, are of much less value. They say: "The information derived from these studies on the liver does not compare in diagnostic and prognostic value with that derived from corresponding studies of the kidney. This may depend on several factors, namely, (a) the inadequacy of our knowledge of liver physiology; (b) the limited number of cases and of types of severe liver injury under observation; (c) the possible existence of a great 'factor of safety' in the liver, whereby in cases of necessity function is carried on efficiently by a relatively small proportion of liver substance; (d) the fact that the prognosis in many of these cases is controlled by factors other than decreased liver function, and (e) the lack at present of correlation of anatomic, clinical and functional findings occasioned by the newness of the subject. The results, however, encourage us in the belief that scientifically and also clinically this subject is worthy of extensive investigation."

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - - - - Editor

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Medicine as a Business.

Are doctors the "easy marks" that smooth tongued promoters seem to think? Sometimes it looks as if they were, but when the newspapers report that Banker Buddedick has been swindled on a "gold-brick" deal or that Farmer Horseradish went broke on an option deal in wheat one may conclude that the gambling instinct is pretty strong in all of us.

The average doctor accumulates wealth very slowly, but a life of ease and luxury appeals to every one of us just as strongly as to another man. It is very discouraging to put a dollar away and watch it grow, especially when the gray hairs accumulate on one's head much faster than the dollars do in the bank. At such a time there may be an exacerbation of the gambling fever and one may drop his little savings in any old kind of a get-rich-quick scheme—just so it is different from the one he tried before.

The average doctor is too kind hearted, too benevolent, too generous, to accumulate wealth. He gives too much of his time and his energy for nothing. He is too generous with his services to people who are better able to pay for them than he is to work for nothing. He is too

benevolent in his care of the poor, who should be the burden of, not one man, but the people at large. He is too kind hearted in permitting his patrons to make their own terms of settlement—like the doctor who made a reduction of ten dollars on his account in order that a grateful patient might give him a present. Too many times the doctor doesn't know whether or not he will get anything for his services until his work is done and the bill presented. Poor business—yes. But the practice of medicine is not a business. A great many try to make a business of it and occasionally one succeeds in doing so, but with the majority of doctors it is more like the old fashioned philanthropy, which pays no dividends and gets no advertising. The average doctor, regularly and faithfully, sets down the customary charge and at intervals of necessity collects such part thereof as his patrons are able or willing to pay.

From a business point of view it costs too much to prepare oneself for the practice of medicine and then it costs too much to practice medicine after one is prepared. The actual expense for the proper upkeep of an average practice, after it is well established, is out of all proportion to the returns. This disproportion is more pronounced when the practice is small than when it is large and there are few items of this expense which can be reduced. To the doctor who expects to do any business an automobile is as necessary as an office and these two items of expense are considerable. Expenditures for medical books and magazines and for office equipment, instruments and supplies, will vary with the inclinations of the individual, with the amount of business he does, and with the character of his business, but in every case these items of expense count up to a considerable sum. Most all of these things cost too much. Medical books cost too much, not because the publisher makes a heavy profit, but because they are usually published in small editions and the cost of production per volume is high. When you buy a book, thirty per cent of the

amount you pay for it goes to the agent who sells it to you, and you can't save that thirty per cent by sending your order direct to the publisher. In that case the publisher gets all of it—his regular profit and the thirty per cent velvet or possibly this may be set off against the advertising account. Most all of the instruments you buy cost too much. As a rule you have to pay a profit to two middlemen and it does not matter whether you buy from the traveling salesman or the retail man. Entirely too many of the instruments we buy are made in some foreign country and we have to pay the duty. That seems a needless expense, but so long as we are willing to pay the extra cost for imported instruments we will probably be permitted to do so. Why should not physicians encourage home production of drugs and of instruments by giving preference to those which are made in our own country?

It is probably true that every doctor in the state, who has practiced medicine for ten years, has several hundred dollars worth of junk which has been sold to him by some smooth tongued salesman. There are a great many static machines in the offices of doctors in small town that are used as tables for books and medicines and for every other purpose, except the one for which they were intended, because the owner has no convenient or satisfactory motive power with which to operate them, or because his business does not permit him to have such regular office hours as to develop a business in electro-therapy. We have all bought instruments that have been highly recommended by the designer only to wonder afterward if he had ever tried to use it himself. It seems that every operator feels it his duty to design some new form of instrument, which may forever after be known by his name. It would be a good idea to have a council on instruments and office equipment in the A. M. A. similar to the council on pharmacy, so that we may know something about the practical value of the devices that are constantly being made to sell.

Effects of the Anti-Narcotic Law.

The acute suffering which the enforcement of the anti-narcotic law will cause can hardly be foretold. That it will ultimately be a great blessing to the people is certain if it can be enforced as stringently as is now anticipated.

These drug addicts, however, will not readily give up a well formed habit and physicians will find themselves the victims of all sorts of imposition. The strict enforcement of the law means that addicts must sooner or later learn to do without their drug and a great many of them will require assistance. Every physician will be called upon to relieve some of his patients of the drug habit or to supply them with their usual dope. He will be compelled to treat these cases or refer them to some one else. It will be much easier for the general practitioner to handle them now that it is practically impossible for them to secure the drugs without his knowledge.

There will be a great many of these cases that can be more safely treated in some of the institutions devoted to that class of work. Such institutions are very numerous, but unfortunately some of them are not of the most ethical character. We would suggest to those who have occasion to recommend a sanitarium to the friends of drug addicts that they peruse the advertising pages of the Journal, for only those that are known to be ethical and reliable are permitted to advertise in these columns.

The far reaching effects of the anti-narcotic law are suggested in the following item which we have clipped from the Chicago Tribune:

"There are more than a million opium and cocaine users in the United States? What can they do?

"Some will make more or less permanent connections with improper sources of supply. Physicians, dentists, and veterinarians, tempted to supply drugs to addicts, whether impelled by cupidity or weakness, should bear in mind that the federal government is strong and compelling.

"Some addicts will find temporary supplies to tide them over a brief period.

"Some will undertake cures. They will find it easier to break off than they thought. Cures are fairly satisfactory. They will be doubly satisfactory now that relapsing is to be a difficult matter.

"It is a common knowledge that some prisoners are broken of their habits by short jail sentences. Deprived of their drug, they suffer severely for a few days and moderately for a few weeks, but at the expiration of their sentences they go out freed of the habit. As they are, generally speaking, neurotic or feeble minded, they relapse. But the jail experience has proved that breaking off is not so unpleasant as was expected.

"Perhaps now that a strong government proposes to act in lieu of a strong will the cures may be without relapse."

————— R —————

Efficiency or Politics.

We believe it is the consensus of opinion in the medical profession that efficiency should count more than political influence in the selection of men to fill the medical offices of the state. No doubt the Governor has a great many more applicants for places than there are places to fill, and he will perhaps make neither more enemies nor more friends if he attempts to fill all of the places than he will if he permits those to remain who have proved themselves capable and efficient.

At the present time Kansas is fortunate in having a number of very efficient medical officers and we believe that with only a few exceptions the interests of the state will be better served by keeping in service those who have familiarized themselves with the work expected of them. We feel that this is particularly true of the secretary of the board of registration. The present occupant has held the office for some time because he has been energetic and efficient. Even the enemies of Dr. Dykes, if he has any, must give him credit

for having been a first class executive officer for this board.

We can see no good grounds for the argument that such positions as this should be passed around. There are one or two medical jobs that were apparently created, and a good salary attached, for the mere purpose of political reward, but positions on the licensing board do not belong in that class. The Kansas Medical Society has several times given its endorsement to Dr. Dykes and some three or four years ago the editor of the Journal of the A. M. A. took occasion to commend his activities in enforcing the medical laws of the state. We must not overlook the fact that no funds are provided the board for the prosecution of violators of the medical law and that since the amendment of the law by the legislature of 1913 it is impossible to convict some of the most persistent of the unlicensed.

————— R —————

The Defense Work.

When the Kansas Medical Society established its defense fund, it was impossible for any one to estimate the probable cost of conducting such a defense as the members desired. While the payment of judgments was never contemplated, it was very definitely provided that all the expense, including court costs, should be borne by the society. The court costs in a suit sometimes amount to considerable. It is customary for the costs to be assessed against the losing party in the suit and, since it is the policy of the defense board and so provided by the rules, to defend its cases through the supreme court if necessary, **when a suit is finally lost** there is quite a bill of expense to be met from the funds of the society. Fortunately the defense board has lost only one case and this one was carried through the supreme court, where the decision of the lower court was sustained. The total amount expended in defending this suit was something over a thousand dollars.

The defense fund would be entirely inadequate to carry out the purposes of its

creation if many cases should be lost. It is impossible for the board or for any one else to determine beforehand what the expense for defense in any one year will be. That it has cost the society, on an average, a thousand dollars a year is no guaranty of the future needs. It is possible that the board will, even soon, be compelled to increase its average expenditure. The present very satisfactory arrangement with its attorney is only a temporary arrangement and the board has already been asked to consider some revision of the present agreement.

The defense feature has proven its merit and it is hardly probable that the members of the society would care to see it abolished, even though the cost of maintenance were double. It is hardly safe, however, to leave the defense board without an emergency fund to draw upon in cases of necessity. The per capita already provided will, no doubt, be sufficient to carry on the work if the same good luck attends the efforts of the defense board, but if one or two cases should go the wrong way there would be insufficient funds to pay the running expenses and large bills of court costs also. An emergency fund of at least two thousand dollars should be kept up for such possible contingencies as this.

—————R—————

How the Anti-Narcotic Law Affects Physicians.

There seems to be some confusion among physicians in regard to interpretations of the anti-narcotic law. It has been suggested by some of the newspapers that physicians would be required to have specially prepared blanks upon which to write prescriptions for narcotic drugs and that copies of such prescriptions must be kept on file for two years.

According to the Journal of the A. M. A. (March 6) "The only affect it has on the prescribing physician is that it requires him to register with the collector of internal revenue of the district, and that in writing a prescription for narcotic or

habit-forming drugs he must write thereon the name and address of the patient, have on the prescription his office address and his registry number, and sign his name in full. He can—and should, probably, if he has printed blanks—have his registry number printed on the blank. He need not keep either copies or records of prescriptions; this is done by the druggist."

—————R—————

Anti Fee-Splitting Bill Passed.

We print below the full text of the bill against fee-splitting which was introduced in the Senate by Troutman, and was passed by both houses and as soon as it has been signed by the governor will become a law.

Senate Bill No. 653 By Senator Troutman

AN ACT

Relating to physicians and surgeons.

Be it enacted by the Legislature of the State of Kansas:

Section 1. It shall be unlawful for any physicians or surgeon to pay or offer to pay to any other physician or surgeon or to any person in his behalf, either directly or indirectly, any fee, money or thing of value of any kind in consideration of such other physician's or surgeon's bringing to him, or agreeing or promising to bring to him, for treatment, any patient, assisting or treat or operate upon any such patient so sent, or advising or agreeing, promising or proposing to advise any patient to consult him, or to be treated or operated upon by him, or assisting to treat or operate upon any patient so advised; and it shall be unlawful for any physician or surgeon who shall have sent or shall propose to send to another physician or surgeon any patient, or who shall have advised or promised or proposed to advise any patient or patients to go to or to consult such other physician or surgeon, to demand, collect or receive any fee, money or thing of value of any kind, either directly or indirectly, therefor, or for assisting to treat or operate upon any patient so sent or advised; provided, however, that it shall not be unlawful for

such physicians or surgeons to pay or receive such fee, money or value where full disclosure as to the amount to be paid and received shall have been made to the patient or person liable for the fees to be charged for the treatment of such patient before such patient or person shall have paid or agreed upon the amount of the fees to be paid by them.

Sec. 2. Any person who shall violate any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction shall be punished by a fine of not more than \$500 and by imprisonment in the county jail for not exceeding six months, or both, and such conviction shall operate as an annulment of the license of such convicted person to practice as a physician and surgeon in this state.

Sec. 3. It shall be unlawful for any person, firm or corporation, owning, operating or controlling any hospital in this state, to pay directly or indirectly to any physician or surgeon any commission or consideration of any kind whatever for advising any patient to go to such hospital for treatment or operation or for bringing any patient to such hospital for such purpose.

Sec. 4. It shall be unlawful for any physician, surgeon or hospital to demand or collect any fees or charges from any patient in any case in which there shall have been a violation of this act.

Sec. 5. All acts and parts of acts in conflict herewith are hereby repealed.

Sec. 6. This act shall take effect and be in force from and after its publication in the statute book.

—————R—————

A Cause of Sterility.

One of our prominent Kansas educators has advanced a new thought on the causes of sterility in men. In a public lecture delivered a few days ago he warned the girls in his audience against marriage with young men who smoke cigarettes, especially those who inhale the smoke for "these young men will never be fathers of children."

It is expected that Senate Bill No. 150, which is the bill introduced by Senator Huffman as a substitute to the bill prepared by the Commission appointed by Governor Hodges, will come up for consideration in the senate in a few days. We are unable to learn at this time what the prospects for its passage may be. This is the bill which was printed in the last number of the Journal.

—————R—————

Until the beginning of this year it has been impossible for the Journal to publish many papers, except those read at the state meetings.

Since the enlargement of the Journal we will be able to use a considerable number of original articles and we request the secretaries of county societies to send to the editor, not only reports of the society meetings, but also the papers that have been read.

—————R—————

The Medical Society of the State of New York will hold its hundred and ninth annual meeting in Buffalo, April 27-29. On account of the European war, this will probably be the largest medical meeting of the year, except perhaps that of the A. M. A. in San Francisco. Through the co-operation of the military authorities, the meeting will be held in the 65th Regiment Armory—not the old arsenal, now the City Convention Hall. This armory is one of the largest in the country and will afford accommodations for all activities of the meeting, except the annual banquet. A restaurant will be conducted in the building there will be ample space for commercial and scientific exhibits, and an abundance of halls for general and section meetings. Even an automobile park will be provided on the armory grounds. No one need leave the building except to sleep, unless possibly to attend lectures to the laity which will be given by prominent visiting physicians and which will probably be held in the Masten Park High School across the street. —Buffalo Medical Journal.

The Corral

By O. P. Davis

"If Thoughts Run Wild, Put Them in Bounds."

The migrations of the Northeast Kansas Medical Society took me, on the occasion of its last meeting, Feb. 25th, once more to Lawrence. The weather was fine, so I locked up the ponies in the Corral and journeyed to that classic seat of learning.

* * *

The very atmosphere of this old town is laden with historic exhalations, and redolent, to me at least, with fragrant memories of my academic days; days long past now, as I compute the years, but fresh and sweet, on the occasion of each return, to my vivid retrospection.

* * *

I wander through the once familiar streets, climb the persistent grades, linger in the old corridors, and at last find myself in old Snow Hall, where I have been so many, many times before. And I might easily forget, as I proceed, that I have been away through the long stretch of years, were I not apprised, by a closer look, that the streets are not quite the same; that the old buildings are now hedged around by new, and perhaps more imposing ones; and that the once familiar halls are now peopled, not by the old familiar faces, but by new and strange ones of a new generation.

* * *

Yet, though I find these changes, and am lost and lonely among these strangers, I feel, in some sense, at home again as I once more stand on Mount Oread, because I know that I have come back to that which, in part, belongs to me as citizen and alumnus, and to which I myself belong, in loyalty and faith.

* * *

It is not my purpose to report the various excellent features of the medical meeting at Lawrence, or to discuss any of the details of that delightful and successful occasion. On another page of the Journal will no doubt be found some such

report. But I wish to stroll about over the campus and make such scattering, and perhaps inconsequential, observations as may occur to me.

* * *

I have often wondered what induced the pioneer fathers to set the University upon a hill, when other sites less difficult of access could have been easily obtained for the asking. But whether it was fear of a deluge or love of the outlook that led the founders to establish the school on the top of this hill, it must be conceded that there is a constant inspiration to the lover of nature in the sublime picture that here greets the eye, in whatever direction he may look. Sunshine and shadow playing on distant hills and valleys, all green or brown or white according to season, cannot but charm and soothe the restless soul of youth into sweet placidity and constrain the vagrantly inclined to more patiently serve their tedious sentence of hard labor here.

* * *

I missed from the landscape the old windmill which used to give an ancient and picturesque touch to the scene. But there are other ruins to remind me of those days. There are, for instance, the old standpipe and old North College, standing as mute and dismantled memorials of days and generations now gone. And perhaps after another decade or two have passed, some returning alumnus will find some of the more recent additions to the campus looking as hoary and decrepit as the ruins just mentioned, for at least a few of the buildings of later years do not look as though they could seriously resist for long the gnawing tooth of time.

* * *

Mt. Oread is the seat of a growing number of buildings exemplifying the most diverse and even outlandish architectural ideas, and planted there with regard for no plan that is at all obvious to the ordinary observer. There are all kinds of buildings; the grotesquely ugly, the unspeakably flimsy, the vulgarly ornate, as well as the stately and graceful and sub-

stantial. The walls are of nearly every kind of material that can be used for such purpose, and the styles and the orientation are about as miscellaneous as the buildings. If there is anything consistent or intelligible in the developmental scheme it is not quite manifest. Many of the buildings are built of native Kansas limestone, and if this material had been used in all of them the effect would certainly have been more pleasing and the results I think quite as permanent. But the latest and largest building, of which only one wing is completed, introduces yet another type to the infinite variety, and the material used is also entirely different. It is built of penitentiary brick veneered with terra cotta.

Old Snow Hall, where the meeting was held, is a beautiful building, but the beauty is all in the exterior architecture. As in much of the building of earlier days, the chief thought seemed to center in making the biggest show on the outside for the money expended, with little care or thought for permanence or stability, or even internal utility and convenience. And yet Snow Hall is dear to me. I have vivid memories of many happy hours spent in this white pile of stone, and of inspiring contact and association there with such men and scientists as Snow, Williston, Dyche, Stevens and others. Through these broad windows youthful eyes, wearied with their tasks, gazed out upon the unrivaled vista of hills and river. The glamor of hope and the ambitious visions of the future seemed somehow to become a part of the alluring picture. And every return suggests fond reminiscences of those days, however much they may be tinged by regret for the failures and shortcomings and disappointments that the years have brought.

* * *

I spent some time, as is my habit when on Mt. Oread, in the Dyche Museum. I never tire of looking upon the wonderful panorama of North American mammals which the great Kansas naturalist has erected there. Years ago, I spent many

an hour in Dyche's workshop in the Snow Hall attic, and watched him bring many of these forest denizens to life again by the touch of his master hand. It seemed as though he had kept vividly in his mind's eye the last pose of the victims of his un-failing rifle and was now, by the flourish of his magic wand, charming them back into sentient, vital form once more. And so they stand there now, after more than twenty years—the great bull moose and the rest of his herd; the buffalos, the mountain goats and sheep; and many other creatures, large and small,—the trophies of many a strenuous hunt, the wages of many a hard and toilsome expedition. And there is old Comanche, too, the dumb survivor of the Custer Massacre, still standing and looking through sphinx-like eyes; still cherishing, now as ever, the terrible secrets of that long gone, fatal day. All these resurrected and re-incarnated forms stand here where the master bade them stand; but he himself has gone away on a last long adventure.

I felt, as I looked once more upon these immortalized beasts of field and forest and mountain, full of regret that the image of the great artist must moulder to dust, and live only in the fading memory of men, while these humbler forms are perpetuated by his art for the coming generations. And I thought, what a pity if the state, in all too tardy gratitude and appreciation, does not soon replace the flimsy and perishable building in which these treasures are contained by an indestructible one of granite and steel, in which to safely house for all time these priceless collections!

And I wondered why, when such a memorial shall have been erected, it might not fitly receive into its faithful keeping, in some suitable crypt within its walls, the mortal remains of Lewis Lindsay Dyche, and bear as his epitaph the peculiarly appropriate words of Stevenson:

"Here he lies where he longed to be;
Home is the sailor, home from sea,
And the hunter home from the hill."

Some Suggestions on the Expert Witness Problem.

By JUDGE J. C. RUPENTHAL.

I have not had time to answer promptly your letter of February 8th, nor have I given the matter of expert witnesses in court from the medical profession such careful thought and investigation as it deserves in order that one might prudently risk being quoted in an organ so widely circulated as the Journal of the Kansas Medical Society. Up in the short grass country we don't have so very much trouble about expert witnesses, and the question is one of academic, rather than practical, interest to us here usually, although at any time it may become a matter of vital concern in the trial of any personal damage case, or possibly even in a criminal prosecution, as for assault of some kinds, or homicide. Your assumption is undoubtedly well grounded that expert witnesses should be free from any sense of obligation to either side in a suit for damages, or in any other suit in which they are called on to testify, and you are likewise entirely correct in saying that it is almost impossible to maintain an entirely unbiased and unprejudiced attitude under the present system. The side which presents a physician is certain to expect him to testify, as far as possible, favorably to their side, and not to disclose any more that is favorable to the other side than he has to under his duties as a witness. The apprehension you feel, however, that the physician does not get the case from both sides is one that should not cause any concern nor any harm, if the attorneys on each side are alert and well informed and familiar with their case. You suggest that sometimes an important point is brought out in the evidence which changes the whole aspect of the case, and that this often makes the expert appear in a bad light. It should not be so, because the expert is not usually expected to testify as to what is in the case, but to testify as to what causes, effects, courses, re-

sults, inclinations and tendencies, and similar things, will be under a given set of circumstances which are placed before him in a hypothetical question: If one side presents a hypothesis which leaves out some important point that ultimately comes up in the case, the other side, if sufficiently alert and watchful, will correct this upon cross examination by stating a hypothesis in which this hidden or embodied fact is clearly presented, so that the expert will have that too before him in expressing an opinion on a hypothetical case, and by these means of direct examination and cross examination, if the attorneys are really familiar with their subject, it should be readily possible to present all kinds of possibilities that might exist under the testimony in the case. Another feature is that the expert usually is not called in until the plaintiff has outlined his case very fully, and his attorneys should be in possession of all of the facts, so as to make a hypothetical case which is true to some phase of the evidence, if it be accepted as truthful evidence. If the plaintiff's attorney fails to include all of the facts which have been elicited in the direct examination, in making up his hypothetical question, the defendant's attorney if alert will be quick to see that the hypothesis as presented to the expert witness does not embrace all the facts as narrated by the ordinary witnesses in the case, and upon objection to the court that the hypothesis is not borne out by the testimony previously offered, the court would sustain an objection to such hypothetical question, until the plaintiff's attorney had put in the condition which defendant's attorney suggests has been left out that naturally goes with the hypothesis under the evidence that has already been produced in the case. On the other hand, if after that, when the defendant's witnesses take the stand, they bring out an altogether different state of facts, the expert who testified first for the plaintiff has no reason to be chagrined or humiliated by that, because he is not responsible for what class

of facts will be brought out by the defense, and can only be held reasonably responsible for the series of facts that are shown by the plaintiff's witnesses. If the attorney for the defense wishes to test the expert on the theory that he is going to act upon, he may upon cross-examination state hypothetically the facts as they will be brought out when his turn in the case comes, and at such time the expert witness for the plaintiff may freely express his views as to what the conditions or results or whatever asked for, would be under such a hypothetical state of facts as the defendant's attorney outlined. Again, if he believes that he has been placed in any false light by the subsequent testimony after he leaves the stand; that is, by the testimony produced by the defense, there is no reason why in justice he may not be used on part of the defense as well, called as their witness, if they wish to use him, and thereby get his views on the hypothesis of the facts as testified to by the defense. Possibly the situation may even arise sometimes by reason of the testimony on behalf of the defense, that the expert witness, for his own protection, might desire to be recalled for further cross-examination or in rebuttal on behalf of the plaintiff, so as to explain the difference between his answers upon a hypothesis as placed before him by the plaintiff, and a hypothesis as it would be under the differing facts which are produced by the defense. However, the plaintiff's attorney would probably not encourage this last form of defensive testimony on the part of the expert witness, and the case would have to be a pretty serious one before a court would let a witness return upon his own request to attempt to make his statements consistent with his former testimony and harmonious with the facts as brought out by the defense. There is certainly merit in the idea which is supported by some lawyers and jurists of having the expert called by the court or judge, not in any sense to be regarded as the partisan of either side, but to be regarded like an interpreter, just as favorable to

one side as to the other. It seems to me that to have a court appoint one or more experts is not at all subversive of the best interests of justice and may even be decidedly helpful, but this, I think, would always have to be done with the understanding that it does not limit the power of either side to call experts, much as they do now, nor preclude expert evidence being offered on behalf of either side. To do otherwise would practically enable the court to shut off arbitrarily any class of testimony except such as the court thought ought to be introduced. It is quite likely that if we had experts selected by the court, that private experts would not very often be called in, yet we find now that with an official divorce proctor who is an officer of the court, litigants not infrequently have their own private attorney to defend in a divorce case. We have guardians *ad litem* appointed by the court for minors, and other persons incapable of defending themselves. Yet a private attorney may appear in behalf of such incompetents, or minors, and a court would neither want to, nor could it shut them out. We have official court reporters, yet this does not for an instant prevent any litigant from having his own private reporter present, and this is sometimes done in important cases in addition to the official reporter; and the right as to expert witnesses should probably remain as unrestrained as it is with reference to interpreters or reporters. One unsatisfactory feature at the present time in connection with the matter of expert testimony is that under the law there is no provision for paying any expert, medical, legal or other kind, however technical or skillful, any more than the statutory \$1.50 a day, which goes to all witnesses alike, skilled or unskilled, and when an expert witness is called now, there is no provision for paying him more than the legal \$1.50 a day, or for taxing up any more than that amount as costs, and the only way that he may get compensation comparable to his training or learning or skill is by private compensation paid by the party who calls

him. This extra pay, of course, has a tendency to make the expert feel a sense of obligation and responsibility to the side which calls him. On the other hand, to permit any large fees to be allowed to experts by the court or under its direction, will be resented either by the public should it in any sense be charged up as a part of the cost like other court costs which the public pays, and would be resented by the litigants, if it were charged up to the losing party in the case.

Very truly,

J. C. RUPPENTHAL.

SOCIETY NOTES.

NORTON-DECATUR COUNTY SOCIETY.

The Norton-Decatur County Society met in Norton on March 4, and the following program was presented:

- President's AddressH. O. Hardesty
 "Quarantine Regulation".....C. W. Cole
 "Pneumonia"C. W. Ward
 "Cholecystitis"O. M. Cassell
 Round Table.

NORTHEAST KANSAS SOCIETY.

The Northeast Kansas Medical Society met at Lawrence Thursday, February 25. The afternoon session was held at Snow Hall on the University campus. As this was the annual meeting the first thing on the program was the election of officers. The nominating committee recommended that Dr. G. W. Jones of Lawrence be made president; Dr. J. J. Brady of Frankfort, vice-president, and Dr. J. L. Everhardy, secretary-treasurer. The report of the committee was unanimously adopted.

The following program had been prepared:

1. "Gonococcus Infections"
 Dr. C. W. Robinson, Atchison
2. "Vaccine Therapy"
 Dr. Milton Conner, Topeka
3. "Treatment of Inoperable Carcinoma Uteri".....Dr. C. J. McGee, Leavenworth
4. "Newer Phases of Cancer Question"
 Dr. C. C. Nesselrode, Kansas City

5. "Typhoid Perforations of the Bowel"
 Dr. G. M. Gray, Kansas City
 6. "Organs of Internal Secretion".....
 Dr. W. W. Duke, Kansas City, Mo.
 7. "Newer Conception of Proteid Bodies".
 Prof. S. A. Mathews Lawrence
 8. "The Chromaffin System"—Illustrated
 Prof. John Sundwall, Lawrence
- Dr. McGee of Leavenworth was unable to be present. The visiting members were entertained at dinner at the Eldridge House and after dinner a short session was held in the hotel parlors and the address of Prof. Mathews was heard with the closest attention. The paper by Dr. Sundwall had to be omitted as it was illustrated by stereopticon views and there was no arrangement at the hotel by which a lantern could be used.

This was one of the most interesting programs the society has ever presented. The papers were all along the lines of advanced thought.

WYANDOTTE COUNTY SOCIETY.

The Wyandotte County Society met in the Mercantile Club rooms Tuesday evening, March 2. A paper on "Toxemia of Pregnancy" by Dr. A. E. Reeves was the principal feature of the program.

CLOUD COUNTY SOCIETY.

The Cloud County Medical Society met in the Sawhill-Robertson reception room in Concordia on the evening of February 18. The following doctors were present: Weaver, Pigman, Sawhill, Laing, Robertson, Kiene, Beach, St. John and Davies. Two papers were presented, the first by Dr. A. J. Weaver, entitled, "Appendicitis During Pregnancy," and the second by Dr. E. N. Robertson, entitled, "Some Recent Observations Concerning the Tonsil as a Focal Point of Infection." Both papers were generally discussed by the physicians present. In the business session which followed three new members were taken into the society. Upon motion of Dr. Pigman, the following officers were re-elected for another year:

President, Dr. Chas. Stein, Glasco; vice-president, Dr. Frank Kinnamon, Aurora; secretary, Dr. E. N. Robertson, Concordia; treasurer, Dr. W. F. Sawhill, Concordia.

After the meeting Dr. St. John invited the members to his office where Mr. Rosenbaum, special demonstrator, explained the working and mechanism of the elaborate X-Ray and electrical outfit, recently installed by Dr. St. John. The doctor demonstrated the use of his roentgenoscope and the photographing of bone lesions, having a couple of patients on exhibition for this purpose.

E. N. ROBERTSON, Secretary.

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Proposed Amendment to the Constitution

The following resolution was proposed by Dr. O. P. Davis, at the last meeting of the Council and after consideration the Council recommended the amendment. After being twice published in the Journal it may come up for action at the next meeting of the House of Delegates:

A resolution proposing an amendment to the Constitution of the Kansas Medical Society.

Resolved, That Section 2 of Article XI of the Constitution of the Kansas Medical Society be stricken out and the following be substituted therefor:

ARTICLE XI SECTION 2. The sum accruing from one dollar per capita of the annual membership dues of the Society, together with any additional funds specially appropriated, and together with any unexpended residue of previous appropriations for the same purpose, shall be set apart and constitute a Medical Defense Fund, and shall be subject to expenditure on vouchers signed by the chairman of the Defense Board and countersigned by the president of the Society.

O. P. DAVIS.

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New and Non-Official Remedies.

Since publication of New and Non-official Remedies, 1914, and in addition to

those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies":

Alcresta Ipecac Tablets.—Tablets containing an absorption product of ipecac alkaloids and Fullers' earth, each tablet representing 10 grs. of ipecac. The ipecac adsorption product is said to pass the stomach unchanged but to be decomposed in the intestine with liberation of the ipecac alkaloids and thus to exert the amebacidal action of ipecac in the body. Eli Lilly and Co., Indianapolis, Ind. (Jour. A. M. A., February 13, 1915, p. 591).

Typhoid Combined Vaccine (Prophylactic).—Marketed in vials and syringes, each package containing three doses. Schiefelin and Co., New York (Jour. A. M. A., Feb. 20, 1915, p. 665).

Cantharidin, Merck.—A non-proprietary preparation of cantharidin. Merck and Co., New York (Jour. A. M. A., Feb. 20, 1915, p. 665).

During February the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

H. K. Mulford Co.:

Cholera Serobacterin.

Meningo Serobacterin.

Typho Serobacterin, mixed.

W. A. PUCKNER, *Sec'y.*

Council on Pharmacy and Chemistry.

BOOK REVIEWS.

A Manual of Diseases of the Nose, Throat and Ear.

Third edition, thoroughly revised. By E. B. Gleason, M. D. Professor of Otology in the Medico-Chirurgical College, Philadelphia. Third edition, thoroughly revised. 12 mo. of 590 pages, 223 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$2.50 net. W. B. Saunders Company, Philadelphia, London.

Dr. Gleason has thoroughly revised this book, which has long since found its place

in many of the libraries of the medical profession, and it is again brought up to date in every particular. To the student and the general practitioner the concise descriptions and the clearly outlined methods of treatment are more pleasing and more satisfactory than are the more voluminous texts. The work is already so well known that it is hardly necessary to say more than that it has been thoroughly revised.

New and Non-Official Remedies, 1915.

Published by the American Medical Association. Paper bound copies will be sent postpaid on receipt of 50 cents, cloth bound copies for \$1.00.

Address American Medical Association, 535 North Dearborn St., Chicago.

The following by W. A. Puckner, Secretary of the Council on Pharmacy, fully describes the scope of the work and its importance to every practitioner.

The present edition of New and Non-official Remedies marks the tenth year of the existence of the Council on Pharmacy and Chemistry. Since 1907, when it was published as a modest pamphlet, New and Non-official Remedies has grown to a volume of 426 pages. It may be fairly said to contain descriptions of all the worth-while proprietary and non-official remedies now on the market in the United States. Further, it is the only book or publication which contains comprehensive and trustworthy discussions of the composition, source, properties and dosages of proprietary remedies. As every physician should be informed about new remedies, even if he has little use for them, a copy of the book should be in the possession of all. It is not too much to say that a physician who is not familiar with New and Non-official Remedies is doing his full duty neither to himself and his profession, nor to his patients.

In addition to the individual descriptions of drugs and preparations, the book contains critical discussions of the various

classes of preparations. These general discussions compare the value of the newer remedies with the established drugs which they are designated to displace. Thus the book affords an authoritative review of therapeutic progress.

The book contains, as a supplement, a list of references to discussions of articles not admitted to New and Non-official Remedies which have appeared in the Journal of the American Medical Association, in the annual reports of the Council on Pharmacy and Chemistry and in the reports of the A. M. A. chemical laboratory. This list of references enables physicians readily to obtain information in regard to the many nostrums which are exploited to the medical profession.

Cancer, Its Cause and Treatment.

By L. Duncan Bulkley, A. M., M. D. Senior physician to the New York Cancer Hospital. Published by Paul B. Hoeber, 67-69 East 59th St., New York. Price \$1.50 net postpaid.

The experience of the author of this book is an asset of no small importance and gives prestige to his opinions upon the subject of cancer. Thirty years of observation has proven to him the great value of dietetic and medicinal treatment in these cases. In his discussion of the treatment of cancer the author says: "Thus it may safely be said that of the total number of cases of cancer existing at any one time, which would be included under the above classes, fully 50 per cent are such that operative surgery can offer no hope of material benefit; also, it must be acknowledged that but a relatively small proportion of all cancer cases are likely to secure the very best surgical service, such as claims the highest percentage of success.

For this large number of hopeless victims of the dire disease, at least, proper dietary and medical treatment should be most carefully studied and patiently applied, with the hope and expectation that the same, if correctly employed, would

more or less hinder or check its progress or prevent a recurrence after operation. But experience shows that such measures, if taken promptly and thoroughly, can also prevent the development of early threatening lesions into those of malignant character, suggesting surgical removal, and these should never be neglected when there is the slightest suspicion of cancer. For it must be acknowledged that the surgery of cancer is only an attempt at the physical removal of something, which medical science and art should not have allowed to develop out of normal tissue."

MISCELLANEOUS.

The Harrison Anti-Narcotic Law.

A summary of its provisions, including a list of products of H. K. Mulford Co., affected by this act.

(Copies of this pamphlet will be mailed to readers of the Journal on application to H. K. Mulford Co., Philadelphia, Pa.)

For the guidance of our many patrons, we beg to offer an abstract of the new federal anti-narcotic law, officially known as Public Act No. 223, H. R. 6282, approved December 17, 1914, as we interpret it.

Goes into effect March 1, 1915.

DRUGS COVERED.

Opium, coca leaves, all compounds, derivatives, alkaloids, salts and preparations thereof.

EXCEPTIONS.

Preparations and remedies which do not contain more than 2 grains per oz. or fl. oz. of opium; one-fourth grain per oz. or fl. oz. morphine; one-eighth grain per oz. or fl. oz. heroin; one grain per oz. or fl. oz. codeine.

Liniments, ointments or other preparations for external use only, unless they contain cocaine, alpha or beta-eucaine, or any salt, derivative or synthetic substitute for them.

Decocainized coca leaves and preparations are exempted.

GENERAL PROVISIONS OF THE ACT.

1. Registration of all manufacturers, dealers and distributors with local collector of internal revenue on or before March 1, 1915; annual registration on or before July 1st thereafter and payment of special tax of \$1.00. No others may import, manufacture, compound, deal in, dispense, sell, distribute, or give away any drug covered by this act, nor may any others have any such drug in their possession, except:

(a) Employees of registered persons or firms acting within the scope of their employment.

(b) United States, state, county, municipal, territorial and insular officers lawfully engaged in making purchases for the army and navy, public health service, government, state, county, municipal, territorial, or insular hospitals or prisons.

(c) Nurses under supervision of physicians, dentists or veterinarians registered under this act.

(d) Persons to whom such physicians, dentists or veterinarians have dispensed or for whom they have prescribed said drugs, in good faith.

(e) Persons delivering such prescribed or dispensed drugs to patients.

(f) Warehousemen holding possession for persons properly registered under this act.

(g) Common carriers engaged in transporting such drugs.

2. Said drugs and preparations may be sold, exchanged or given away only on receipt of a written order on special forms issued by the commissioner of internal revenue. These forms or order blanks are to be issued in duplicates, one to be retained by purchaser and filed for two years; the other to be retained by seller and likewise filed for two years. Collectors of internal revenue will sell these forms in books of 10 or 50 at rate of \$1.00 per hundred, only to those registered under the act, and only in the name of the registered purchaser, who will be given an entry or registry number. Dealers, therefore, will not be able to furnish customers with blanks, even

though the customer be properly registered.

3. Registration and payment of special tax is required of all whom handle the above drugs, including manufacturers, wholesalers, jobbers, retailers, physicians, dentists and veterinarians.

4. Physicians, dentists and veterinarians, registered under the act, are exempted from use of special forms in dispensing to or treating patients on whom they are in personal attendance; if not in personal attendance on any such patient, a record, showing amount dispensed, date, name and address of patient, must be made and kept, subject to inspection for two years, but no special form need be employed.

5. Pharmacists may fill written prescriptions for drugs under this act, without use of the special order forms, provided:

(a) The physician, dentist or veterinarian writing the prescription is duly registered under this act.

(b) The prescription is signed with the full name of the prescriber on the date indicated.

(c) The prescription bears the registry number of the prescriber, his office address and the name and address of the person for whom the prescription is written.

(d) The prescription be filed for two years, in a manner readily accessible to inspectors.

6. Pharmacists, physicians, dentists, veterinarians and all registered under this act who sell or dispense directly to consumers must on March 1, 1915, prepare and keep on file an inventory of all drugs amenable to this act on hand on that date. No special form is required for this inventory, but it must clearly set forth kind and quantity of each such drug or preparation then on hand, and must be verified by oath not later than March 5, 1915.

7. This act does not apply to drugs exported to any foreign country, but such exportations must be in accord with the

laws of such foreign country and be in accord with such regulations as may be promulgated from time to time by the Secretary of State of the United States.

8. Special forms are not required for sale, exchange or gift of these drugs to officers or officials of United States, state, territorial, district, county, municipal or insular governments lawfully engaged in making purchases for army and navy, public health service, government, state, territorial, district, county, municipal or insular hospitals or prisons. Private hospitals and institutions are not included in this exemption.

9. This act applies to all United States territory, including all detached territories, insular possessions and the Canal Zone.

10. Local collectors of internal revenue may demand at any time a sworn statement setting forth the quantity of aforesaid drugs received during a period not to exceed three months immediately preceding the demand, said statement to include sources of said drugs, quantities in each instance and dates when received. (There is nothing in the law which requires the keeping of any special records other than the filing of the orders, nor the making out of any reports at stated intervals, nor the making of any reports of goods sold.)

PENALTY FOR VIOLATION OF THIS ACT.

A fine of not more than \$2,000.00 or imprisonment for not more than five years, or both.

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Conference of Charities to Discuss Medical Topics.

Chicago, Feb. 11.—Announcement has been made from the headquarters' office of the National Conference of Charities and Correction of the preliminary program for its forty-second annual meeting at Baltimore, Maryland, May 12th to 19th. The conference will meet under the presidency of Mrs. John M. Glenn of New York, the second woman president it has ever had.

The program contains the names of over fifty leading charity workers and penologists, and it is anticipated the unprecedented social situation of the present year will result in a conference of unique values. The program on "The Family and the Community" will result in considerable discussion of methods of treating individual cases of poverty, as, for example, in a study of "The Psychology of Co-operation." Prof. Henry R. Seager of Columbia University will give an address on the "Causes and Remedies of Unemployment."

The program of "Health" will be under the chairmanship of Dr. Richard C. Cabot, of Boston. It will include a series of discussion of the social responsibility of the hospital and practical methods of social work in connection with hospitals, the chief speaker being Dr. William H. Welch of Johns Hopkins Hospital, Baltimore. Other subjects will be: "A Pay Clinic for Persons of Moderate Means," "The Distinction Between 'Intensive Cases' and 'Short Service Cases' in Hospital Social Work," and "Social Education of the Physician," the latter subject being treated by Dr. Charles P. Emerson, Dean of the Indiana University Medical School.

In previous years the National Conference has discussed the extent of scientific knowledge of the question of prostitution and the value of current methods of popular education. This year, under the chairmanship of Mrs. Martha P. Balconer, superintendent of the State School for Girls at Darling, Pa., the question will be asked, "How shall the evil be suppressed?" The speakers on this subject include Dr. Katherine Bement Davis, commissioner of corrections of the city of New York, and Miss Maude E. Miner, secretary of the Probation and Protective Association of that city.

The discussion of state care of the insane, feeble-minded and epileptic will occur under the chairmanship of Dr. Walter E. Fernald, superintendent of the Massachusetts School for Feeble-minded at Waverly. It will include answers to the question "What is Practicable in the Way of

Prevention of Mental Defect and Disease?" and a discussion of "Available Fields for Research and Prevention in Mental Defect." The speakers in this section include Dr. Adolf Meyer of Baltimore, Dr. C. B. Davenport, Cold Spring Harbor, N. Y., Dr. H. H. Goddard of Vineland, N. J., Dr. Martin W. Barr, superintendent of the Pennsylvania School for the Feeble-minded at Elwyn, and Dr. Walter S. Cornell of Philadelphia.

Other divisions of the program are upon children, corrections, education for social work, the family and the community, public and private charities, and social legislation.

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Government's Work for Properly Labeled Drugs and Better Food.

Washington, D. C.—The false and fraudulent labeling of medicines and mineral waters has recently received a great deal of attention from the Bureau of Chemistry, according to the Bureau's report for the year ending June 30, 1914. A large number of instances have been found in which impossible claims for the preparations in question have been made and in these cases steps have been taken to compel the owners to alter the labels. This is true of a large number of veterinary medicines and in particular of (so-called) cures for hog cholera. As for mineral waters, the position long held by the Bureau, that so-called lithia water must contain enough lithia to produce an appreciable therapeutic effect, has now been sustained by the supreme court of the District of Columbia, and in consequence action has been taken to enforce this ruling. Measures are being taken to prevent the exploitation of so-called radio-active waters in which the amount of radium is negligible. Furthermore, mineral waters to which has been added carbonic acid gas or mineral salt, are not any more, sold as "natural," but are properly labeled.

In connection with the Bureau's work of food inspection two important sanitary surveys have been made of oyster growing

localities, one in Chesapeake Bay, and one in Jamaica Bay, N. Y. Wherever these surveys resulted in the discovery of polluted areas the oystermen moved their stock to clean water and maintained it there for a sufficient time, until all danger to the consumer was done away with.

Altogether there were nearly 12,000 samples of food and beverages collected and analyzed. The co-operation of other branches of the government has been secured for the prosecution of cases not fully covered by the Food and Drugs Act. For example, in one case connected with illegal traffic in bad eggs, a number of persons were indicted for conspiracy. In another case a manufacturer of beverages received a long prison sentence for putting wood alcohol in his products.

In addition to this regulatory work connected with the enforcement of various laws, scientists of the Bureau have been carrying on important investigations. The report makes particular mention of the study of the subject of potato drying. Dried potatoes may be kept indefinitely for stock feed and are of course much less bulky and, therefore, less expensive to transport than ordinary potatoes. This investigation will ultimately be extended to other uses for potato products, such as the manufacture of starch and glucose, in order to encourage the production of potatoes as a regular part in crop rotation in sections where this could be done with benefit.

Two new ways have also been discovered of utilizing surplus and cull apples. One is the manufacture of apple sirup by clarifying and boiling down apple juice. The sirup obtained promises to be a welcome addition to our diet as well as affording a new market for the apple grower. The other method of disposing of the surplus of apples is the manufacture of concentrated cider. Hitherto the market for cider has been limited, due to the fact that it can only be kept sweet a short time and that its bulk makes its transportation too expensive when long distances are to be covered. The concen-

trated cider ferments very slowly when kept at a low temperature. When diluted with water it has practically the same flavor as the original apple juice from which it was made, and its condensed form makes it much cheaper to ship.

Considerable attention has also been devoted to the fish industry which up to the present time has been a subject of much less scientific study than meat packing. With the growing scarcity of meat, however, it seems obvious that fish will come to play a more important part in the nation's food supply and such questions as the best means of storage, transportation, and the prevention of waste deserve careful investigation. An instance of the value of this work is afforded by the Maine sardine industry. As a result of government investigation a marked improvement has taken place in the quality of American sardines put up by establishments along the coast of that state.

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Lymphatic Diseases of the Skin.

G. Arndt, Berlin, Germany, (*Journal A. M. A.*, Oct. 10, 1914), describes the skin troubles in lymphadenosis. He thinks the old terms of lymphatic and myeloid leukemia should be replaced by aleukemic, subleukemic and leukemic lymphadenosis and myelosis. The essential pathologic feature of lymphadenosis is the generalized overgrowth of the lymphatic hematopoietic tissues and the essential feature of the myelosis is a generalized hyperplasia of the myeloid tissue. According to the blood changes we distinguish in lymphadenosis an aleukemic form, if the blood is normal, a subleukemic form if the number of white cells is normal, or nearly so, but the proportion of lymphocytes is increased, and a leukemic form when there is an increase in both the leukocytes and in the lymphocytes. The changes in the skin in the beginning of lymphadenosis may be clinically and histologically divided into non-characteristic changes and changes representing proper localizations of the lymphadenotic process in the skin. The

former are called leukemids (Audry); the latter are the true lymphadenoses of the skin. Among the leukemid skin lesions he includes the purpura of the large-celled leukemia where the enlargement of lymph nodes, liver and spleen may be absent. The prurigo lymphatica of Wagner, the cases of exfoliative erythrodermia of lymphadenosis closely resembling the pityriasis of Hebra of which no reliable blood count has been made so far as he knows and which he seems to think may be pathologically the same. The proper lymphadenosis of the skin represents a pathologic condition completely equivalent to the changes of the inner organs caused by a general hyperplasia of the lymphatic tissue. The lymphadenosis of the skin may be divided into a diffuse or universal form and a circumscribed form causing flat infiltration nodules or tumor-like swellings. The former is exceedingly rare and is not accepted by all authors. The cases which are in no doubt as regards their lymphadenotic nature number only four so far reported. The diagnosis of the circumscribed form is less difficult and the two forms never pass into each other. The circumscribed patches are observed in all forms of lymphadenosis. The symptoms and diagnosis of all of these forms is discussed in full detail which cannot be well reproduced in an abstract. The leukemids present special difficulties in diagnosis and the blood picture is not always reliable as they may occur in the aleukemic or sub-leukemic types. There are two theories of the pathogenesis of these skin troubles: 1. That of the migration of the lymphocytes and their deposit near the blood-vessels without or with only slight local proliferation and the theory of Pinkus, on the other hand, that it is due to a local proliferation of the preformed lymphatic tissue of the skin seems, admitting Ribbert's views as to the general distribution of lymphatic tissue, to be most plausible. On the other hand it is possible that some of the lymphocytes come from the blood. We know nothing absolutely certain as to the etiology. So-called acute leukemia is of

perhaps infectious origin although it is quite impossible sometimes to exclude a secondary infection. Some authorities think the acute forms entirely distinct from chronic lymphadenosis, in regard to which there are also different opinions, some suggesting infection, others calling it a neoplasm and still others a special trouble quite different from both. The prognosis of lymphadenosis of the skin is that of lymphatic leukemia in general.

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Serosalvarsan Treatment of Paresis.

L. B. Pilsbury, Lincoln, Neb. (Journal A. M. A., Oct. 10, 1914), has treated thirteen patients with paresis with salvarsanized serum, two of whom received only two injections and are not reported on in his tables. One is not improved, and the other is dead. In all 62 intraspinal treatments have been given. "Only salvarsan has been used and wherever an intravenous salvarsan injection is shown in the tables the intraspinal injection was given on the following day. A few intravenous injections are indicated which are not followed by the usual intraspinal treatments. As soon as the blood was withdrawn the fibrin was whipped out and the blood diluted with an equal amount of physiologic salt solution, so as to make a 50 per cent serum. This was left in the ice-box over night, the serum removed the following day and heated to 56 C. for from one-half to one hour, the period varying somewhat. The injection was made with an ordinary glass cylinder, a small rubber bulb being attached to the lowest arm of a glass T, so as to make slight pressure when needed. The usual interval before withdrawal of blood was one hour, but this was sometimes shortened to one-half or three-quarters of an hour. McCaskey now recommends an interval of only twenty minutes as he thinks the spirocheticidal power of the blood is then at its height. After some vacillation I decided on 30 c.c. of 50 per cent serum as a standard dose, an approximately equal amount of spinal fluid being withdrawn.

The usual interval between treatments was two weeks." Six of the eleven patients mentioned in the tables show improvement in some respect, not necessarily clinical. One is no better and four are dead; all cases were well advanced. In most cases the tendency has been toward a reduction in the amount of globulin, albumin, number of cells and in the spinal fluid Wassermann. All of these particulars are shown in charts for each case.

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Elimination of Urea.

"The approximately uniform distribution of urea which has been shown to exist throughout the body is also found when the urea content has been increased either by injections of urea or by interference with excretion by the kidneys, or by both means," says *The Journal of the American Medical Association* editorially in its issue of September 26. "The body cells appear to be able to take up surprisingly large quantities of the substance. The diffusion of urea to all parts of the body is accomplished very quickly. For example, no matter how soon blood is withdrawn after the end of an injection of urea a large part of this infogenous material has already gone out of the circulation. In view of this fact it is not difficult to understand why the concentration in the blood is never essentially higher or lower than that in the tissues themselves. Furthermore, urea is eliminated with extreme rapidity by the kidneys. The rate of excretion in normal animals is directly proportional to the concentration of urea in the blood. It may be retarded, however, after a certain amount of dehydration has occurred, that is, when elimination cannot be accomplished owing to lack of water for the kidneys to secrete. If water is then given, urea is again thrown out at an increased rate. There are doubtless few, if any, substances with which the body cells come in contact that permeate all kinds of cells so readily and that are eliminated so easily as is urea. As Marshall and Davis have pointed out,

it is clearly the most desirable form into which nitrogen could be put for elimination from the body."

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Inguinal Appendix.

H. W. Wade, New Orleans (*Journal A. M. A.*, March 6, 1915), says that the variety of positions within the abdominal cavity that may be taken by the appendix is remarkable. Besides its more frequent locations about the cecum and pelvis, it is not rarely found within the hernial pouch, most generally in the inguinal form. The figures indicate that the occurrence of cecal and appendicular hernias is about 1.65 per cent, and the appendix alone in a hernia seems to be still rarer. The primary cause of appendicular hernia is usually held to be the presence of an unobliterated pouch of the peritoneum together with the abnormally movable cecum. The so-called sliding hernia of the cecum is another condition due to a more or less gradual retroperitoneal displacement of this structure. The case reported by Wade is evidently of a different causation. It occurred in a colored male infant of 6 months, who, besides intestinal disturbance, had other disorders, and succumbed to terminal pneumonia. At necropsy the appendix seemed at first to be absent. From its usual point of origin, however, and continuous with the anterior longitudinal muscle band, there was a somewhat flattened thick white cords of tissue, passing directly downward for 6 cm. to the internal abdominal ring, and covered by a fold of the peritoneum. No evidence of sac could be detected. By reflection of the skin and fascia over the inguinal canal and scrotum, the appendiceal band was face downward, to end in a slightly bulbous tip a little above the testicle. The fold of the peritoneum was evidently an extension of the meso-appendix. There was no evidence of a scar tissue following inflammation. If there had been any primary peritoneal sac, all trace of it was lost. Wade holds it probable that during the descent of the testicles the appendix

was in some manner included, and that it was drawn as a part of the spermatic cord through the internal abdominal ring and left without serous covering in the inguinal canal by the normal obliteration of the funicular portion of the tunica vaginalis.

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Splenectomy in Pernicious Anemia.

The performance of splenectomy is advocated in many cases of pernicious anemia by W. W. Roblee, Riverside, Cal. (Journal A. M. A., March 6, 1915), who discusses the functions of the spleen, the disturbance of which may cause the trouble. He says: "1. Primary pernicious anemia is probably due to a toxin which may be of bacterial, chemical or parasitic origin, and in some cases there is an increase of the unsaturated fatty acids. The spleen seems to exercise an influence favorable to the elaboration of these substances. These toxins appear also to cause a hyperemia of the splenic pulp because of changes in the blood vessels, which cause the blood to be poured directly into the pulp. The presence of the spleen seems to cause a diminution in the amount of the total fats and cholesterins of the blood which are antihemolytic. For these theoretical reason, and because of the numerous cases on record in which a cure has been obtained in Banti's disease, which is closely related to pernicious anemia, splenectomy appears to be indicated in these and the closely associated anemias. 2. Removal of the spleen either in sickness or in health does not affect the patient injuriously. The operative mortality is not high even in very weak patients. 3. A rapid and striking remission of all symptoms appears, the change in the blood picture coming quickly and quite certainly. It is too soon for us to know whether or not any patients will be permanently cured, but it is quite probable that a large percentage will succumb to the disease within a few months after operation. Other methods of treatment should be combined with splenectomy, as more than one factor

is doubtless at work in these cases. It will certainly prolong life, and in our incomplete knowledge of the etiology of this disease and the certainty that death will come under every other known method of treatment, I believe that these patients should be offered this additional chance of recovery. We must remember that some patients have been reported symptomatically well at the end of nine months, even though the blood was not entirely normal."

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Hydrocephalus.

The possible relation of a contracted maternal pelvis to development of hydrocephalus after birth is suggested by R. J. E. Oden, Cadillac, Mich. (Journal A. M. A., March 6, 1915). He has found no similar suggestion in the literature, but reports a case of a woman, a mother of four children, two living and two dead. The first child was undersized at birth, and though the labor was difficult, it terminated normally. The child, now 8 years old, is normal. The second child, born three years later after a difficult and prolonged labor at full term, was delivered instrumentally. It appeared normal at birth, but soon developed hydrocephalus, and died at 3 years. The third child was delivered under very difficult conditions; he lived but a short time. At birth there were no signs of cephalic enlargement, which were very marked at death. A fourth pregnancy reached full term, and in the meantime a pelvic mensuration had revealed a contracted pelvis. A normal child was delivered by Cesarean section. Lues and tuberculosis are usually considered as the chief factors of post-natal development of hydrocephalus, but we are beginning to learn these diseases are not so commonly responsible. In the case reported, both parents were free from any stigmata of disease. Oden thinks this case is sufficiently suggestive to be considered by others who have like conditions to meet, and cesarean section by a competent operator is not a formidable operation, and is

justifiable in case of contracted pelvis when the previously born children have developed hydrocephalus.

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Tetanus.

T. H. Kelley, Chicago, (Journal A. M. A., March 6, 1915), reports a case of tetanus fully developed treated by intraspinal and intramuscular injections of tetanus antitoxin, with recovery. The incubation was nine days, and it had been allowed to reach an extreme state with convulsive seizures occurring every fifteen minutes. Forty-five hundred units of tetanus antitoxin were slowly injected intraspinally according to the usual treatment. "Forty-five hundred units were given intravenously, which is somewhat below the amount usually deemed necessary. No antitoxin was given by the subcutaneous or intramuscular routes, except the 3,000 units given before the patient was brought to the hospital. The local treatment consisted in exposing the wound to a continuous stream of oxygen for thirty-six hours. Boric acid and alcohol dressings were used to counteract the local infection. Free use was made of cathartics. During the first two days in the hospital sedatives in form of morphin and chloroform were at intervals used." The case is reported as an instance of the value of intraspinal injections as outlined by Park and later by Irons.

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Tuberculin Treatment.

The use of tuberculin (W. W. Duke in Jr. Mo. St. Med. Assn.) has been increasing rapidly, especially during the past 10 years, and at the present time is an important part of the treatment in the vast majority of sanatoriums for tuberculosis in Europe and America. It is recommended by such men as Sahli, A. E. Wright, Wolff-Eisner, Bandler and Roepke, Newmann, Riviere and Morland in Europe, and in America especially by Hanman and Wolman, Miller, Hawes, Floyd and others.

The history of tuberculin is interesting.

It was given out in 1890 by Koch to a small band of workers and was hailed by the world as a cure for tuberculosis. It was found woefully wanting and in a few months was almost universally discarded. Those using it were almost unanimous in saying that its main action was to spread the disease, increase the size of cavities and cause emaciation and weakness. The remedy, if it could be called such as it was then used, was discarded by the great majority of workers until about 1901, when the publications of A. E. Wright and Sahli, working independently and on different lines came out. Since this time its popularity has steadily increased. The admitted mistake of the early workers was the ignoring of reactions, or rather the endeavor to produce reactions. It has been the avoidance and possibly also the occasional utilization of slight reactions which has brought it into popularity again.

Two theoretical factors known as sensitiveness to tuberculin are of considerable importance. Normal animals possess neither sensitiveness nor tolerance. Koch injected as much as 1 c.c. of undiluted tuberculin in a normal boy without the production of fever. Guinea-pigs have been inoculated with more than this without the production of serious symptoms.

The other theoretical factor previously mentioned is tolerance. The injection of even minute doses of tuberculin may cause a severe febrile reaction in tubercular patients. Now, if the initial dose of a long series of injections is extremely small, and if this dose is slowly and gradually increased at proper intervals, the dose may be eventually increased a thousand or even a million times the size of the original dose without the production of fever. The immunity so produced is known as tolerance.

The theoretical object of course of tuberculin is to increase sensitiveness and tolerance to a point which can prevent spread of the disease and also render the patient immune to products of the tubercle bacillus and in this way keep him afebrile. This, if it can be accomplished, would seem to give the optimum opportunity for arrest of the disease.

Lead Poisoning.

G. Wilse Robinson, Kansas City, Mo. (Journal A. M. A., March 6, 1915), says that much has been written concerning industrial lead poisoning, but he desires to call attention to another form of lead poisoning, which he believes is quite common and the cause of a great deal of female disability, that is, lead poisoning from the use of "Flake White" as a cosmetic. Two cases are reported, showing rather extreme types of lead intoxication due to skin absorption from this source. He believes that many cases of general nervous debility, some insanity and perhaps other types of paralysis, as well as many vague and poorly understood abdominal pains are due to this cause. Abdominal sections have been performed for no other reason, he thinks, and some abortions have this for their cause.

THERAPEUTIC NOTES

Mudlavia Has Chicago Office.

Dr. George F. Butler, who is meeting with gratifying success in making a high class medical institution of Mudlavia, has opened a Chicago office at 1451 People's Gas Building, 122 South Michigan Boulevard. He will be at that office on the first and third Saturdays of each month, from 2 to 4 p. m., for free consultation with those who wish to present their cases or who desire special information concerning the Mudlavia treatment. Appointment may be made in advance by addressing Dr. George F. Butler, Medical Director Mudlavia, Kramer, Ind.

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That social diversions provide an important adjunct to health building is well recognized. An institution which takes full advantage of this idea is the Battle Creek Sanitarium which employs a corps of social secretaries whose duty is to provide such pleasant diversions as will lead patients to forget, as far as possible, the ailments from which they seek relief.

Of course such diversions must be very

simple in form; varying types of invalids must be cared for separately and the whole subject of social diversions must be given very careful study in order to effect desirable results.

For the invalid who is unable to leave her room, and the patient who is about to undergo a surgical operation, a social secretary known as the "Official Sunshine" is provided. Her duty is to extend encouragement to the suffering.

For the more improved patient, simple social gatherings such as lectures, musicales and receptions can be arranged.

The sanitarium has found that this branch of the work is very effective in making patients feel perfectly at home in their new surroundings and in leading them out of themselves into the paths of health.

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WANTED—Location or association with established physician by 1913 graduate, married, 30 years old. Address "B" Journal Kansas Medical Society, Topeka, Kan.

WANTED—Location—Association with an established physician or contract by a young married Kansas doctor. 1913 graduate, 32 years old. Capable and efficient. Address Journal Kansas Medical Society, Topeka, Kansas.

FOR SALE—A 16 in. S. W. Radiographic Special X-Ray Coil complete. Dr. O. P. Brittain, Salina, Kansas.

FOR SALE—Static X-Ray machine made by National X-Ray Co., Topeka, Kansas. This machine is new, never having been used. A bargain. Ed. C. Jerman, R. F. No. 1, Topeka, Kansas.

FOR SALE—A Victor Finsen Light Apparatus. Will sell cheap. Address Journal Kansas Medical Society, Topeka, Kansas.

FOR SALE—A Jerman Static Machine, in good condition, and some new office furniture. Address Mrs. J. B. Armstead, 1006 Morris avenue, Topeka, Kan.

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ORIGINAL ARTICLES.

Hookworm Disease.

L. EMMETT MOCK, M.D., St. John, Kan.

Read before the Kansas Medical Society at Wichita, May, 1914.

It has been only a few years, perhaps within the recollection of all who are present here today, that yellow fever (with malarial fever a close second), was the hydra-headed monster of the South wreaking its deadly vengeance on practically all who contracted the disease and causing a reign of terror throughout the region in which it appeared and grave concern throughout the entire South. Today we rarely hear yellow fever spoken of, and then very casually, as a thing which "once was but is no more," belonging only in history; it has been relegated to the past through the heroic efforts of the great profession to which we belong.

One man in giving a definition of life said, and very aptly, that "Life is just one damned thing after another," and so it is with the South in regard to its fight with disease; it now has two monsters of frightful mien to fight, one of which I wish to call your attention to today, this one being hookworm disease. While it does not cause the reign of terror, wreaking its vengeance so swiftly and deadly as did yellow fever, yet it slowly but surely takes its toll of human lives. It has so insidiously done its work that it affects its thousands where yellow fever affected perhaps only tens.

It is just within the last few years

that the South, and the country at large, has waked up to the realization of what hookworm disease really is, what it is doing and what it means to the South and the importance of eradicating it; and I wish to say here that it seems that John D. Rockefeller was one among those who realized that it was time to be up and doing for the eradication of hookworm disease; for the Rockefeller Hookworm Commission is doing a great work along that line throughout the South.

Hookworm disease is caused by a species of hookworm, (*Ankylostoma Duodenale*, *Uncinaria Duodenalis*, *Necator Americanus*), which lives in the small intestines as a parasite. It is especially prevalent in warm countries, and in some regions of country in temperate latitudes, where the summer and other features, such as warm damp mines, offer favorable conditions, and occurs mostly in people who come in contact with the damp earth or water that is infected with the larvae of the parasite.

The disease is characterized by a progressive anemia, weakness, impaired development in the young, (both physical and mental), and various symptoms in the circulatory, digestive and nervous systems, and in various degrees and combinations. While it is occasionally fatal, yet with the proper treatment and with the proper hygienic surroundings it can be cured. We also have what are known as "hookworm carriers" which is of vital importance. In this class of cases we have the mild infections where the

patient, if we may call them patients, owing to their racial immunity, or to their splendid physical condition they resist the infection so completely that the symptoms produced are so slight that they are not even put in the class of suspects; and while we cannot say that they are suffering with hookworm disease, yet they are infected, going at will, discharging the ova of the parasite in their feces, polluting the soil and making themselves a menace to the public health; so you can very readily appreciate the importance of the hookworm carrier.

Hookworms have an extensive range. They are found in all parts of tropics, where, it is said, and perhaps truthfully, too, that they are the greatest enemies of the human race, and in some subtropical climates, and in some regions classed as temperate. The extreme range of latitude is from 51 degrees North, to nearly 40 degrees South. It is one of the most common and most important diseases in the tropics. It is no doubt the chief cause of the so-called tropical anemia, instead of being due to climatic conditions as was formerly thought.

In Europe the disease has been found chiefly in Belgium, France, Germany, England, Hungary, the Balkan peninsula and Italy. It is found in other European countries, the worst infections being found in mining districts; the infection in some of the mines running as high as 95 per cent, and in some carrying a high death rate. The high temperature and moisture in the mines favor the development of the larvae; watered mines being worse. In Africa, Egypt, (90 per cent in Cairo, 20 to 30 other places), the Mediterranean countries; the East and West coasts to the Cape, Uganda, Mombosa, Mozambique, Zanzibar, Madagascar, Mauritiass, the Comorro islands. The African Negro is not so likely to show severe symptoms as many other races. In Cameroon Kulz found 70 per cent of the population af-

fected. In Asia there are many severely infected areas, including most of India, China, Cochin-China, Burmah, Siam, Ceylon, Malay Archipelago, Java, Borneo, Formosa, and Japan. The Philippines, Guam, Australia, New-Guinea Fiji and Sandwich Islands are severely infected. In Manilla Strong found 52 per cent of 4,016 Philippine prisoners infected. In South America the disease is very extensive, especially in Brazil; also as far south as Argentina. It exists in Mexico, Central America, in Panama, and in all parts of the Antilles the disease is present.

In the United States there has been no systematic and extensive search made but it is clear that the country from Virginia at the Potomac river to Florida and Texas is infected. In Virginia Clayton's early case furnished Stiles with his first case of *Uncinaria Americana*. Bagley, (1910) believed that there were 80 per cent of the working people in the cotton mills that were infected. In North Carolina it is more frequent. In 1904 Nicholson and Rankin found 37 per cent of 140 students of Wake Forrest University infected. Sometimes every man from a given district was infected.

The disease is present in South Carolina, Georgia, Florida, Alabama, Tennessee, Mississippi, Louisiana, Arkansas, and Texas is widely infected.

The chief factors in the existence of hookworm disease, or hookworm infection, given the presence of the parasite, as by fresh importation, are high temperature and moisture with oxygen.

The modes of infection are through the skin and through the mouth; or, we might say, directly through the mouth, and indirectly through the skin. Though direct mouth infection may occur, yet it is of minor importance in the production of hookworm disease. It is believed that skin infection is practically the only source of the disease.

Different species of hookworm have been found parasitic in various lower

animals—dogs, sheep, cattle, horses, pigs, cats, foxes, seals, badgers, etc.—these, however, are different and distinct from those infecting man and have never been found in man. Two species infect man—*Ankylostoma Duodenale*, and *Uncinaria Americanus*—both have been found capable of entering the skin of lower animals, but have never reached adult life in the intestinal canal of any animal beside man—except, possibly, the Chimpanzee, the Gibbon and Gorilla. They reach adult life or the reproductive age in the intestines of man, lay their eggs which pass out in the feces. The eggs cannot hatch in the intestines for lack of oxygen, and possibly from the presence of acids and gases produced by intestinal bacteria and flora—and it has been shown by Loose and Smith, and others, that the young worms cannot infect until they have reached the encysted stage of their lives—which requires at least four to five days after they are hatched out and hatching requires eighteen hours or more after they are expelled. The above stated facts, that the parasite reaches the reproductive stage only in the intestinal canal, that the species infecting man do not infect other animals, that the eggs do not hatch in the intestinal canal, and that the larvae are not infectious until they are at least four or five days old, show that the feces of infected persons are the only sources of every hookworm infection, and that a man cannot directly infect himself.

The number of eggs passed with each stool of a heavily infected person is estimated to be as high as four to four and one-half millions; mild cases, 70 per cent hemoglobin, 1,700,000. Remembering that the average number of worms in severe cases is 1,000 to 4,000, it is obvious that it would not require more than 1-1000 part of the eggs in one stool to produce a severe infection if all developed. In considering these figures we wonder that it is not more destructive than it is. Hookworm eggs do not hatch in the intestinal canal; nor do

they hatch in undiluted feces, except under certain special conditions. They have often been kept in a liquid condition for months at a time without any of them hatching—on the other hand, if infected feces are exposed to drying, some on the dried-out surface will hatch, but those deeper in remain undeveloped. Exposed to flies that infect them with their larvae, the constant mixing by the larvae crawling through, allowing aeration (oxygenation), permits of rapid and complete hatching; though hatching in this way the larvae die out before reaching the infectious stage. Dilution of the feces with one or more times their bulk of most any inert porous substance like charcoal, sand, dirt, etc., puts them in the most favorable condition. Experimentally, the best diluent has been charcoal and sand. They must have oxygen and a certain amount of moisture which is very necessary to hatching the eggs and preserving the life of the larvae. Drying kills them.

Feces containing eggs, properly diluted, with the proper heat, moisture and shade will hatch the larvae in twenty-four hours; in two to three days they shed their skins—this is the first ecdysis; after about five days after hatching they begin a second stage of development, or ecdysis; this time they stay inside the skin they have cast, or retracted from and is then called encysted. It is now capable of infecting—is in the infecting stage; but before this time could not infect. Before the encysted or infectious stage is reached the larvae are very easily killed by sunlight, changes of the temperature, too much dilution of the feces with water (1 to 1,000, or above), drying and the chemical constituents of the feces; so, actually very few of the larvae that hatch out reach the encysted or infectious stage. After reaching the infectious stage they infect by the larvae being swallowed, or the polluted or infected soil or water coming in contact with the skin through which the larvae pass, causing a condition which is known

in the South as "Ground Itch," "Foot Itch," "Dew Itch," "Dew Poison," "Toe Itch," etc. (There are some cases of "Ground Itch," however, which do not appear to be followed by the intestinal stage of hookworm disease. Stiles says that in his experience about 87 per cent of hookworm cases definitely admit a history of ground itch.) This ground itch is the cutaneous stage. After passing through the skin the larvae reach the blood stream, pass with the blood into the heart, then into the lungs, get into the bronchi, pass up to the mouth and are swallowed (and it is very probable that a great many of them are spit out), pass through the stomach into the small intestines, principally the jejunum, their natural home, where they undergo further development. Four or five days after reaching the small intestines another ecdysis begins in which they acquire a buccal cavity or capsule with which it fastens on to the mucous membrane of the bowel by sucking in a plug of epithelium which it wounds and from which it sucks the blood which gives it its nourishment; in four or five days following this the last ecdysis begins and the last skin is shed; they are now about one-fifth of an inch long, but grow rapidly and in six to eight weeks from the original infection reach the reproductive or adult stage and begin to lay their eggs.

There is perhaps no disease in which the symptoms vary so much in degree as in hookworm disease; this, of course, depends upon the number of worms present, racial and individual immunity. The number of worms may vary from one up to the lethal dose. Fatal cases in which only ten or twelve worms were found at autopsy have been reported, and other cases where as high as 4,000 worms have been expelled and the patient recovered. Intercurrent or associate diseases which cause more or less anemia may cause a variation of the symptoms. The symptoms of hookworm disease are due to loss of blood and the effect of a toxin

supposed to be given off or produced by the parasite as it hangs on the mucosa of the intestine, which may destroy blood; this blood destruction and loss of blood gives rise to varying degrees of anemia, which in turn gives rise to other symptoms the direct result of long continued loss of blood; it is a question if all the symptoms may not be attributed to this, unless it be the eosinophilia so often found present; it is sure that the most prominent symptoms may be attributed to it. There are some people infected with hookworms that present no clinical symptoms, but if relieved of their worms usually gain several pounds in weight, feel better generally and show improvement in bloodcount and hemoglobin. The symptoms here described will be in the severe infections as seen in the white race, generally; the negro does not present the same symptomatology as the whites do with a like infection, as they seem to show more or less immunity.

The skin in general is dry, from a waxy white to a dirty yellow color, resembling tallow, with an absence of perspiration; the hair is dry, resembling hemp; the beard, pubic and other hair of the body scant and may be late in appearing; there may be edema of the face, especially over the cheek bones, feet, legs, scrotum or a general anasarca.

Skin wounds heal slowly. Stiles says that many of his patients, about 57 per cent of the well-marked cases, either show tibial ulcers or give a history of such lesions.

The face may show an anxious, oft-times a stupid expression; the mucous membrane may be a chalky white; the pupils show a tendency to dilatation, even in a strong light; many have a peculiar blank stare; night blindness is often complained of; the line of demarcation between the skin and mucous membrane of the lips may entirely disappear.

Cervical pulsation may be very prominent and visible several feet away; the

thorax is often so emaciated that the ribs stand out prominently; the shoulders droop and are thrown forward; the shoulder blades stand out prominently (winged shoulder blades).

The abdomen is often swollen to the degree as to simulate pregnancy, giving the condition known locally as "pot-belly," "butter-milk belly," or "shad-belly."

The appetite is very variable; there is a great tendency to develop an unusual appetite for articles of food along some particular line; as for lemons, pickles, coffee, etc.; in the severe cases this tendency may take the direction of "dirt eating," which means that the patient may eat wood, sand, clay, chimney-soot, plaster, cotton, wool, pebbles, etc. Stiles states one case which came under his own observation in which a boy ate three coats, thread by thread, in one year's time.

The stomach is often enlarged; heartburn and flatulence are common; nausea and vomiting occurs; pain and tenderness in the epigastrium are present. Ashford and King, in 1904, gave this as "The most constant, most suggestive and most clearly marked of all symptoms of the digestive tract": the tenderness is marked on inspiration; it is median and continues toward the right, but is less marked and may even disappear toward the left.

There are disturbances of the circulation, among which there is a presystolic thrill; hypertrophy of the left ventricle; hemic murmurs are nearly always present; palpitation occurs early and is prominent and constant; dyspnea is very common in the later stages; the pulse varies from 80 to 132, not necessarily bearing relation to the temperature; the temperature may be normal, sub-normal or may reach 100 to 102 F.

In the blood there is a marked reduction in the red blood cells and the hemoglobin; the red cells may fall as low as 754,000, and the hemoglobin has been reported as low as 8 per cent, eosino-

philia is marked in practically all cases except severe chronic cases with low resisting power.

The muscles are weak and flabby and the movements slow, the patient tires easily and usually gains the reputation of being lazy.

Mental lassitude, headache and dizziness are frequent; the effect on the mind is often marked; children in school affected with the disease often complain that it is hard for them to study, and they are usually the most stupid children in school, and progress slowly with their studies; tingling and formication is often present; insomnia or somnolence is often marked; joint pains are common.

The genital system may be very markedly affected by the disease; if severe infection occurs in childhood puberty may be delayed for many years. Stiles says that he has known girls of twenty years who menstruated only two or three times a year, principally in the winter; and girls 18 to 26 who had never menstruated; the menstrual retardation and irregularity are among the most common and prominent symptoms noticed, and there is no doubt that hookworm disease is one of the most common causes of menstrual disorders among the girls in the South, and especially in the cotton mills and in the open country; abortions and miscarriages are common; sterility and impotence are reported as being frequent.

As to the duration of the disease; in case there is no reinfection a hookworm patient may retain part of his infection for at least six years and seven months, and probably for ten or twelve years; the present evidence indicates that he will perhaps outgrow his infection in about ten or twelve years.

Hookworm disease plays a very important part in the death rate, both directly and indirectly; perhaps the indirect the greatest. The Porto Rican Commission estimated that 30 per cent of the deaths on the island were due to hookworm disease.

Diagnosis:—Manson says that, "The secret of the diagnosis of ankylostomiasis, like that of many other diseases, is to suspect its presence."

There are three methods of diagnosing hookworm disease; namely, by microscopic examination of the fecal matter to find the eggs; by judging the symptoms, and by experimental treatment and finding the expelled worms in the feces. No positive diagnosis can be made without finding the eggs or worms in the stools. The recognition of well-marked cases on the basis of symptoms is not at all difficult to one who is familiar with the disease. Given a patient in an infected area with dry hair, dry, tallow-like skin, dilated pupils, or an unusual tendency to dilatation, shoulders drooping forward and downward, epigastric tenderness continuing toward the right with a tendency to disappear toward the left, winged shoulder blades, slow speech, anemic, poorly developed, scant pubic and axillary hair, delayed type of menstruation and the history of ground itch, especially if there should be several such persons in the same family, the diagnosis is almost positive.

Treatment:—In the treatment of the ground itch there is very little accomplished, if anything, other than to heal up the lesion, as the larvae remain in the skin so short a time until they pass into the deeper circulation, and they resist the action of strong chemicals to such a degree when in the encysted stage that it is doubtful if any of the larvae are killed by the local treatment; the foot may be soaked in warm water, or antiseptic solution, the vesicles opened and pus evacuated and cleansed with an antiseptic solution, as carbolic acid solution—1 to 40—and treating the resulting ulcer with the proper antiseptics, under favorable circumstances will usually heal the lesion in about ten days. It should be kept bandaged to protect from scratching; a good ointment to use for the itching is made of salicylic acid, zinc oxide ointment and vaseline in the proper

proportions. For the treatment of the worms in the intestinal canal, thymol, beta-naphthol and male fern are the drugs most frequently used; and as thymol is the one most widely used in our country I will only give the thymol treatment. The dose of thymol is from $7\frac{1}{2}$ grains to 60 grains, according to age or apparent age; in children it should be given according to apparent age. I will give Ashford and King's table of doses, which is recommended by Dock & Bass.

Under 5 years old in size.....	$7\frac{1}{2}$ grains
5 to 10 years old in size.....	15 grains
10 to 15 years old in size.....	30 grains
15 to 20 years old in size.....	45 grains
20 to 60 years old in size.....	60 grains
Over 60 years old in size...	30 to 45 grains

There are conditions considered unfavorable which would require a still smaller dose than indicated by size; such as pregnancy, diarrhoea, cardiac depression, dropsy, extreme anemia and great weakness.

In administering thymol it is customary to give it in broken doses one or two hours apart. The patient should eat sparingly and a very light diet on the day previous to taking the treatment, and at six o'clock in the evening in place of supper take a good dose of epsom or Glauber's salts; the following morning at six o'clock one-third the dose of thymol is given, at seven o'clock one-third the dose given, and at eight o'clock the last one-third the dose is given; at ten o'clock another dose of salts is given. The patient is kept in bed lying on the right side in order to hasten the passage of the thymol through the stomach. No food at all should be allowed, and no fluids except water, and sparingly of that, during the day of treatment. Nothing containing alcohol, oils or grease of any kind must be given, as they dissolve the thymol and that is likely to give thymol poisoning. Following this plan of treatment toxic symptoms are rarely seen. Thymol is best given in 5-grain capsules, first having been triturated with an equal amount of milk-sugar, or

some other soluble inert substance. The stools after the treatment should be strained through cheese-cloth in order to find the expelled worms. When necessary to administer thymol to children too small to swallow capsules or wafers, it can be suspended in some musilage acacia or some simple syrup. As to the time to administer the treatment, Sunday is usually the day chosen, as it necessitates no loss of time for those who have to work and for children who are going to school; for on Monday following treatment they are ready to eat anything they want and to resume their duties. Treatment should be continued at intervals of one week until the eggs are no longer found in the stools, which usually requires three to six treatments, sometimes more. The anemia and general condition should be treated according to the requirements in each individual case; and along with drug treatment we must bear in mind that pure air, sun-light, and nutrition are very important factors in building up these patients; and, last but not least, after the patient is cured make the sanitary condition such that there will be no reinfection, or new infection, as this is the only means by which hookworm disease can be eradicated.

—R—

Surgery of Gall Bladder and Ducts.

R. C. DUGAN, M.D., Ottawa

Reprinted from the *Journal-Lancet*.

Re-read before the Franklin County Medical Society.

The subject of gall bladder disease, first brought prominently before the American profession by that "Grand Old Man," Christian Fenger, in his classical studies of common duct stones, has since been discussed by such eminent surgeons as Kocher, Moynihan, Mayo Robson, Mayo Brothers, Murphy and others. Still, in my opinion, the statement made by Mayo in 1903 that the gall tract had not received the attention it deserved from the surgeons is still true, but perhaps to a lesser extent. Medical treat-

ment of this condition has now passed into deserved oblivion. No one having the temerity now to claim, at least in the presence of medical men, that there is any medicine of value except perhaps in the matter of prophylaxis, and that is as yet pretty much beyond us. That gall stones are the end result of an infection of the gall tract is now well recognized, but how to prevent said infection is not so clear.

Surgeons in the past have been perhaps a little too apt to blame the general practitioner for not making a diagnosis earlier in every surgical condition, but in candor I must admit that in the cases of gall bladder disease on which I have operated in persons who have been under my personal observation for fifteen or twenty years, the story has been about the same as in those that have come to me from other sources. I have not been able except in one or two cases that have had typhoid to decide when the infection took place that resulted in gall stones, unless, possibly, la grippe was the first offender, creating a condition of lessened resistance to the *Colon Bacillus*, the probable immediate criminal.

The diagnosis of a typical gall stone colic or obstruction of the common duct is so easy that the veriest tyro in medicine should make no mistake. But in the case of latent stones and stones pocketed in the cystic duct, not entirely closing the same, is as Kipling would say: "Another Story."

That a large number of so-called dyspepsias are cases of latent gall stones has been emphasized by both Murphy and Mayo. Complete obstruction of the common or cystic duct, as pointed out by Kocher, brings on urgent symptoms immediately, but latent stones or stones pocketed in the cystic duct may cause only vague uneasiness or simulate various stomach affections. And there is one particular place in the cystic duct very prone to pocketed stones, i. e., the first one-quarter inch of the duct, par-

ticularly in women with a narrow costal arch and the liver well hid under the ribs. In these cases, the duct frequently takes a sharp slant in the first portion, and a stone pocketed in this position is exceedingly hard to feel. As an illustration—Miss P. had considerable stomach trouble extending over a period of three or four years, which was diagnosed by a very competent man as latent gall stones. Later, she had a typical attack of acute appendicitis, for which, she was referred to me with the above history. The abdomen was opened by a right rectus incision of sufficient length to admit the whole hand, and besides removing the appendix the gall tract was, I thought, very carefully examined by palpation but no stones felt. The abdomen was closed, and the patient had no more trouble for about six months when the stomach symptoms returned and were more severe and more markedly periodical. She returned to the hospital, an incision was made over the gall bladder, the bowels well walled back, and after repeatedly palpating the whole gall tract, I finally discovered quite a large stone in the first portion of the cystic duct, nearly buried with liver tissue and with a channel in the duct that allowed the bile to pass except at such times as swelling temporarily closed it. Similar cases have come under our observation several times since.

Another class that furnish a fruitful field for mistakes is very small stones confined to the pelvis of the gall bladder in the presence of large quantities of bile, especially if in a young patient with decided and serious appendix trouble to mask the symptoms. I remember distinctly my chagrin in the case of a young girl operated for appendicitis in which the gall bladder was examined as a matter of routine. I failed to find any stones and was about to close the abdomen when my assistant said she thought she could feel a stone low down in the gall bladder, which proved correct. On opening the gall bladder a

large number of fine soft stones were removed with much bile, which had so covered the stones as to prevent my feeling them—the more sensitive finger of my assistant doing better. However, we felt somewhat less mortified on discovering that Kehr confesses to having missed stones in four per cent of his early cases and two per cent of his later ones.

In regard to age, statistics mostly show thirty to thirty-five years as the usual age of beginning trouble. But Kelly reports a number of cases much younger—in one he attributed the trouble to tight lacing, finding, on opening the abdomen, the gall bladder squeezed far down with a sharp kink at the neck and the pelvis filled with thick ropy bile and mucous.

Wendall reports a case in child of eleven days, undoubtedly congenital, in which there were ninety stones found at autopsy. Still has collected ten cases in very young children, and as comparatively few young children come to the post-mortem table, this would indicate a much larger proportion. However this may be, the consensus of opinion among surgeons, recently, seems to be that gall bladder diseases occur much younger than formerly supposed. I have seen in my small clinic three cases under twenty-five years in the last two years. Although the danger to life is not so imminent in gall bladder disease as in appendicitis, the very serious sequelae of neglected cases should cause us to give our patient a more grave prognosis than has been done in the past.

In one hundred cases of carcinoma of the gall bladder, Musser reports sixty-nine with stones and there was evidence that calculi had been present in the majority of the remainder. Mayo Robson, whose opinion is entitled to great respect, believes that stones are the most common cause of carcinoma in the ducts, although Erdes, Rolleston and others claim the contrary. The cases of infection and impacted stones in the com-

mon duct with cholemia are not only very hard to operate but give a higher mortality by reason of the fact that the cholemia greatly reduces their resisting power, and that the upper abdomen does not bear infection nearly as well as the lower one-half, especially the pelvis.

The danger of procrastination in these cases is very well illustrated by the following:

Mr. L., aged fifty-three years, a very robust farmer, had typical gall stone colic extending over a period of several years, several times made partial arrangements to be operated on, but for one reason or other postponed it, was finally seized with violent pain in the upper abdomen with temperature of 103; was immediately removed to the hospital. On opening abdomen, gall bladder was found ruptured, a large infection in the upper abdomen which, fortunately, was fairly well walled off, in spite of which and the fact that very free drainage was employed, he had a very narrow escape for his life, and in consequence of the large amount of drainage deemed necessary, he was left with a bad hernia (the only one it has been my misfortune to have in the upper abdomen).

Anyone who has not in their own experience realized the great difficulty attending operation on old and neglected cases of common duct stone have but to read the complicated technic described in choledocho-enterostomy by Mayo, Kocher and others.

Murphy has called attention to the increased mortality in cases of stone in the common duct with fewer in comparison to the same condition with the stone confined to the gall bladder and explains it by the fact that the duct is very much richer in lymphatics than the gall bladder, thus increasing the constitutional poisoning.

In view of these very serious conditions in delayed cases, I am constrained to the opinion that we have not, in the past, sufficiently emphasized the danger of delay.

In fact, I think Murphy's famous dictum in regard to appendicitis is nearly, if not quite as applicable here, namely, "That the proper time to operate is just as soon as the diagnosis is made."

—————R—————

Social End of a Clinical Tour in France.

P. S. MITCHELL, M.D., Iola, Kan.

Read before the Southeast Kansas Medical Society, Oct. 1914.

"All work and no play makes Jack a dull boy," is as true with sedate, serious surgeons as it is of the child of ten in the grammar school.

No one left America poisoned with the idea that he was going abroad to spend twelve hours a day pouring over pathologic specimens or watching closely every detail of the numerous gastro-enterostomies, but I really think everyone was materially surprised at the amount of clinical training he accomplished. The great quantity of clinical facts that stuck and points of newness or difference that were assimilated into our surgical being, was largely the result of stimulation from the accompanying pleasure.

Kelly's work on the bladder, Deaver's unique team work and Morris' perineorraphy would now be a dull dream, were it not for the feasts bestowed upon us. Likewise how much better do we remember the goitres of Kocher by having drank the punch in his own garden; Saurbruch's marvelous lung surgery, by being guests on his private yacht on Lake Zurich; Parisian methods, by an aristocratic entertainment of the Academy of Medicine; German pioneering experiments, by her magnificent hostelry; and lastly, English surgery as a fitting climax to all, while we were experiencing the unexpected drama that has hold the world's attention ever since.

The Clinical Congress of Surgeons touring Europe grew out of several local associations of America desiring to make the tour. The party was made up of 134 surgeons and 80 additional people who were families or friends of some of the party.

The handling of the tour was given over to a New York touring agency, who looked after all baggage, hotels, etc., for a fixed sum. Arrangements had been made in advance for a week's clinics to be given in this country before our embarkment. Many availed themselves of this opportunity and happy they were, for, aside from the excellence of clinics, we were feasted and entertained everywhere.

'Twas a beautiful New England summer day—this June the 13th—when all boarded the S. S. Oceanic for across. To the majority it was their first trip abroad and they lived in the anticipation as a boy does of a circus. The last waive of white was seen on the dock, lower Manhattan was cleared and Liberty, on Bedloe's, bidding us God speed from behind, we went within and turned our attention to the future of our trip.

The tour in many respects was unique, having no precedent to follow. Parties had studied together abroad, but in no such vast numbers and it was up to us to work out a solution for the handling of the crowd. While the liner had many other first-class passengers on board, it was essentially a surgical crowd. The lounge of the boat was given over to us each morning at ten o'clock, at which time we listened to and discussed scientific papers and devised ways and means for handling this large body of people in the European hotels and clinics. At first the party was a little stiff, but after a short period we were as of one great family. Lay-tourists seemed to grasp readily the spirit of the touring party, taking a pleasure in coming to our meetings. Plans were devised whereby the party was to be broken up into five groups of about forty each to facilitate the handling of all at hotels and the smaller clinics. This worked out fairly agreeably and was the only solution. The trip over was uneventful and all were happy to see the rising slopes of Normandy's shore appear. Rather reluctantly we turned our backs upon

the Oceanic, not knowing, however, that she should so soon end her long and faithful career so tragically. Cherbourg's harbor bristled with angry-looking defenses from every angle till we almost felt we were in danger and wondered at the uselessness of it all, being unable to look three months in the future. We boarded the queer-looking special French train awaiting us and galloped off toward the capital of the fashionable world. All were comfortably housed in Paris, some satisfied and some were not. New customs and methods upset many. A general arrangement was planned whereby clinics were to be attended during forenoons and the afternoons devoted to sightseeing. This was ardently adhered to and proved to make an excellent combination.

The touring company arranged to take all who desired in sightseeing wagons to the principal points of interest. We availed ourselves of that service when we considered it best. The Louvre, Luxemburg, Notre Dame, the beauties at Versailles and other points of interest were visited in turn. At the week's end the Academy of Medicine tendered our party an entertainment at its palatial quarters. This was done in true aristocratic French style. It seemed it was ours to set all precedents, for this was the first time this aristocratic body ever condescended to entertain a party like this.

Paris and her people at once manifest themselves as a series of contradictions. The people appear thick-headed in grasping and yet are the gayest; she has the heaviest national debt and her museums are laden with diamonds and old gold; sculpture and gold dazzles the eye on the boulevards and yet many of her streets are filthy; she has made the farthest advances in government in Europe and her judiciary is the joke of the world; she collects from debauchery to feed her poor grand opera, and so I might enumerate for hours. Her people are a genteel, clever, pleasure-loving

race. If there is a time in the day, except between six and eight in the morning, that a Frenchman does not eat and drink, I have failed to see it. Revelry goes all night and the curtain is only dropped at six in the morning. The restraint on pleasure is satiety. A stone and glass house is built for the president to view the races on Sunday, where thousands of dollars are openly wagered. Meals are well cooked and slowly served, frequently requiring two hours.

With all her faults we loved this gay young Babylon still. Her art, antiquities and science will leave a valuable impression ever with us that we would not forget if we could.

From the beautiful east station we reluctantly boarded our special train, leaving the naughty old city, and headed for the capital of the Alpine Republic. Over the plains east of Paris, since covered with blood and desolation, we wended our way and landed in Berne that evening just in time to witness the beautiful afterglow of the Alps. The question of one locality excelling another in beauty may be a matter of opinion, but certainly the Alpine afterglow is unique in itself. Excepting the exposition and natural scenery, little was to be seen in Berne. After the clinic of the Great Kocher, we were invited by himself and fraulein to their beautiful home and gardens as their guest for the afternoon. In true chivalric style we were ushered in and introduced by attendants, after which we were feasted, then allowed to roam at pleasure through the beautiful garden and wildwood. No host could have cemented himself more to our hearts than this lovable and venerable man of science. Unlike most men of science, he was as modest and bashful as a school maiden. Gratitude and love can not appease the schedule of a big tour, so we bid farewell to our dear friend and landed next in Zurich, the home of one of the finest universities in Europe.

This city lies on and about the beau-

tiful lake of the same name. After enjoying the unique work on the lung by Saurbruch, he invited the entire party to be his guests on his private yacht on the lake that night. The sun was fast sinking in the west and the scene would have put the first act of Lohengrin to shame. We traversed the eighteen miles of lake between banks with beautiful homes and churches, from which were wafted the evening vespers on the soft alpine air. Mountain climbers in the distance were singing in falsetto and the end of the lake was reached, as if by special staging, just as the sun hid its face, giving the famous afterglow so characteristic of these mountains. A few minutes time was given at the end of the lake for the spell to wear off, when we faced right about and returned. The shadows were falling so the boat was lit up, all were served with eatables and the favorite beverages of the place, while a double quartet entertained us with national airs and folk-lore songs. Our party alternated college songs and national airs with their singing, so the evening hastened by before we were aware. We filed off at the dock, congregated our crowd and marched away up town singing "Good Night Saurbruch." The gentle Swiss folk looked on in wonder and astonishment. It was a fitting meeting of representative men of two republics so different.

Our schedule next took us to Munich, the capital of Bavaria. This center of art and music is a city of three-quarters of a million and one of the biggest railroad and manufacturing centers of Germany.

Here we commenced to hear the legends of Wagner, Beethoven and other notables in music. Although Beethoven lived at Bonn, where later his home was pointed out to us, he was like all musical and other artists who congregated about Munich. Dr. Cooper of West Virginia read a paper on the boat concerning art in Europe and we were deluged with it in the Louvre and Luxemburg, but we

had to get in the atmosphere of Munich before it was really impressed deeply upon us. Homes of artists, the Royal Opera House and old museums and art galleries, all helped to intrench the spell. While Munich is the home of art, it is also the home of Municher beer, the most largely used brand in Europe. One could not pass out of the Bavarian capital without noticing the work done by women and dogs. They cleaned streets, worked on the railroad and, in fact, seemed to do all the heavy work. Likewise we noticed an alertness and activity not seen before. Every point frowned upon you with troops and every official, however small, wore a uniform. Policemen with metal helmets and upturned moustaches directed the inquiring ones very politely. Hardly had we landed here before the news of the death of the Archduke and Duchess of Austria reached us. Fears were expressed lest we might not get accommodations in the Austrian capital. These were soon cleared, for on July 2nd we found ourselves comfortably settled in Vienna.

Little can be said of Vienna as a city. It is well built and national buildings are noticeable for their numbers and beauty. The regal bodies had arrived in the meantime and lay in state in the treasury building, awaiting the midnight funeral the following night. Needless to say, our curious crowd was out to see everything and went to see the procession off to the depot. Independence Day found us still in Vienna and, according to custom, all Americans went out to Baden, thirty miles distant, to celebrate in true American style, witnessing the great American sport.

Clinics had been crowded upon us in such rapid succession that the rest in Dresden, viewing the art and sculpture of the capital of Saxony, was a much-appreciated recreation. This Florence of Germany is rightfully named, for homes and lawns are the prettiest on our trip. Royal palaces and museums as usual were visited, where are accu-

mulated relics and art of ages gone by.

Time whirled by and we had to leave this little oasis of our trip and hurried on to Berlin. Here clinics were in abundance, so many did not get to see the beauties they desired, but statuary on the boulevards, royal palaces, art galleries, the Dome and Arch on Unter den Linden and Sans Souci with her summer royal palaces at Potsdam should be sufficient for the most fastidious on such a hurried trip as this. The party was entertained one night at the ice-palace, where fancy skating was done and American national airs were played in our honor. Berlin can easily be voted the most progressive city of Europe. Her streets are uniform, broad and clean. Her buildings are all of about the same height and built of a gray granite.

If one did not read signs he might mistake Berlin for one of our large progressive American cities. Next we visited Leipsic, where many availed themselves of a tour in a Zeppelin airship, across the country about thirty miles and return. The voyage made at an altitude of about 500 feet was without incident, but a great eye-opener to us in viewing the intensive farming beneath. The footprints of Napoleon were seen here in the way of an immense monument built in commemoration of his defeat. Germans are artists in building monuments to their victories.

From here we went to Jena, another battle ground, where Napoleon was more successful, then to Frankfort A. M. and over to old Heidelberg. Here the old Schloss or Castle stood out in bold relief on the hill as if waiting for tourists. Space will not permit a description of this beautiful old ruin dating back to the middle ages and times of brain storms. Next in interest in this old medieval town is the duelling between the frats of the old university. This barbarous custom is still carried on in its glory and encouraged for the purpose of developing courage in the wary Teuton. One cannot conceive how this coun-

try of advanced intellect will encourage her sons to chop each other up as we saw them do.

From here a few availed themselves of the opportunity to run down to Freiburg in the Black Forest and see Kroenig put on his Twilight Sleep. I should like to talk upon this delusion, but as I am merely sightseeing, must hurry on, catch the party for Weis Baden and make the trip up the Rhine.

One of the great anticipations of our tour was at hand. It was Sunday morning, a little cloudy, but all boarded a river boat and were off. Flat banks drifted into rolling hills and later into abrupt slopes along either side, whose terraces were covered with vineyards. Soon Bingen, Fair Bingen of our childish reading days, hove up. Not the vine-clad and green swards as we read in poetry, but a busy little manufacturing and railroad town of about 10,000 inhabitants. Then the Mouse Tower and famous Lorelei Rock met our view. Interspersed and perched upon every promontory was a castle of some feudal baron of medieval days. First we were astounded from numbers, then wondered, admired, were pleased and finally endured. We lunched on board and according to tradition took the baptismal on our first trip. The day was a pleasant one and passed all too soon, landing us in the popular old cathedral town at sundown. From Cologne we went over to Dusseldorf as the guests of Professor Witzel. After good clinics we were feasted in the beautiful hospital gardens, after which we went out to the Bayer Drug Company's factory as their guest. The employees of this factory have a village of their own, of about 15,000 inhabitants. After showing us over the factory, all were tired and primed for the feast to come.

Little more can be said than that this was a feast for gods, as only Germans know how to serve. I need not enlarge upon this climax of our entertainment while abroad. Suffice it to say, it was

a band of blood royal aristocracy, owning the world, who came from that banquet room on that memorable evening. We returned to Cologne, visited its cathedral and art gallery where the beautiful Princess Louise is to be seen, then bid adieu to Germany. In no country were we so royally treated and from none did we absorb more. One is early made cognizant of the progress and aggressiveness of the German. He loves approbation and wants everything he does to be recognized. He is in the van and is conscious of it. He wants to ride in the band wagon on the front seat and by his work deserves the place. He falls for new fads and grasps at things that make us doubt. On the whole they are the most progressive, highest educated and most hospitable nation in Europe. With no little feeling of regret did we leave this great national host and hurry on to the fated Brussels. The Belgian capital is a beautiful gay city of the Paris type, having a half million souls. Most of the time here was taken up with sightseeing. Some went to Ostend, while all visited the galleries and Waterloo, at that time the most restful spot in Europe.

Our tour could not be complete without the land of the old windmill, so to Amsterdam next we hied and up to Marken in the Zuyder Zee. Here flourish in their medieval customs the children of the wooden shoes.

The clouds were growing angry in the east and we crossed the channel ere the storm broke. All London was astir, suffragettes preaching equal rights, agitators demanding war and Socialists opposing it. Amidst all this turmoil the International Congress and the London clinics continued unabated. Refugees, grimy with dust and sweat, arrived every hour, telling tales of hardships. Kitchener called for troops, a bank holiday came on and the king declared a four days' continuance of the same. Checks and paper money no longer served to pay bills, gold became frightened and a general panic pended. Soon the crisis was

passed and checks were accepted. Reservations for home were made and often cancelled the same day by the boat being taken off. Women were hysterical and men panicky. Enormous sums were paid for steerage passage home by men of wealth. A few took it more calmly, took reservations a few weeks later and toured the British Isles while waiting. They were the most fortunate it proved later, for service to America was freely resumed after a few weeks. Ruins, castles and places of interest over the British Isles were visited and the dull moments were spiced by reading war news. The Congress had scattered and gotten home like rats from a burning ship. Now and then a loiterer was met and how affectionately each others' hands were grasped. So all arrived home, I think, with but little real inconvenience, only experiencing a thrill, for which they would not take worlds. The tour was over and we had a moment to think back. We were treated like princes by all and we left the old country shores with not a little reluctance. A little more sentiment is developed in a tour than going alone and settling down at one place for hard work.

In conclusion, I believe every doctor should tear away from his arduous routine and take a similar trip occasionally. He owes it to himself, family and patrons. Nothing will broaden one more. He is in constant touch with his co-workers, listening to master minds and seeing the wonders to be seen. I can't say I am wildly enthusiastic over foreign surgeons in general, for they are in no way superior to our own. Human life does not count for so much abroad as with us, consequently experiments are more rife. Autopsies are allowed on nine-tenths of all deaths, which is important. Pathological and anatomical laboratories are developed almost to perfection. Laws are not adjudged against the surgeons as severely as here. In general, opportunities for clinical experience is superior to ours. Clinicians are genteel and oblig-

ing and always ready to stop and explain. Asepsis is not handled as practically as with us and in some places its merits are even questioned. Anesthetics are in the balance. Hospitals are not so good or so elaborately equipped. Discipline in hospitals does not seem to be up to our standard. A tour like this has many advantages, and like disadvantages. Should I repeat one, I'd choose a smaller body. One gets value received from either the clinical work or sight-seeking, but combined one gets double value. The route taken seems to be a well-trodden one and I believe could scarcely be improved upon. The time is just sufficient not to tire and for the doctor who has business at home is ideal. To lovers of antiquities, art and scenery combined with a clinical course, the itinerary was complete. Much could be said on any one of these, but a paper on general sightseeing cannot go into detail. From outward observation, Europe will not be at home to guests for a few years now, but at the end of that time, I should recommend that a society like this take a similar tour, only in smaller numbers.

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NOTES FROM THE MEDICAL SCHOOL.

JOHN SUNDWALL, M.D.. Lawrence.

The Thyroid Gland.

The recent work of Professor R. R. Bensley on the thyroid gland of the opossum has much in it that should prove of great interest to clinicians. In the first place, Bensley found two distinct cell types in this gland. In addition to the regular cuboidal epithelial cells concerned in the secretion of colloid, typical of all thyroid glands, a second type of cell is present which simulates in every respect the chromophil cells in the anterior lobe of the hypophysis of mammals. They are large ovoid cells filled with granules which stain deeply in acid and neutral dyes. That these are specific cells of internal secretion there can

be no doubt, but just what their true significance is it is, of course, impossible to state. It has been suggested that they may be a diffuse parathyroid gland.

As the opossum represents one of the lowest forms of mammalian life, it would be of great interest to know just what has become of these cells of internal secretion in the higher mammals. No such cells have been demonstrated in the human. Do other cells in the latter perform a function similar to that of these apparently important cells in the thyroid gland of the opossum?

Of greater clinical significance, perhaps, is the report of Bensley on the behavior of the regular epithelial cells—those concerned in regular colloid secretion. When the thyroids are removed from the opossums when these animals are in their native haunts or soon after captivity, they show the typical normal structure as seen in thyroids in general—tubules filled with colloid, the lumen formed by a single layer of low cuboidal cells. Numerous needle-like crystals are seen within the cytoplasm of these cells.

After opossums have been in captivity for some time the epithelium undergoes marked hyperplasia. The colloid substance decreases in amount and the hyperplastic epithelium fills the lumen originally occupied by the colloid. The crystals disappear and new secretion granules are observed within the hyperplastic epithelium. In fact, the picture is similar to the one seen in the thyroid gland of exophthalmic goitre. Bensley had previously noted these new secretion granules in the latter. Just what the significance of these granules is it is difficult to say. Bensley suggests that the thyroid cells may be polyvalent in function and that the granules may represent the antecedents of another secretion substance besides colloid.

From the pathological standpoint then the opossums have developed, while in captivity, a goitre of the exophthalmic variety. What factors are responsible for this hyperplasia is, of course, un-

known. Whether it is due to captivity itself or to diet—food or water, or both—are interesting speculations. That the thyroid gland of other animals is a very unstable organ has been demonstrated. In fishes, Marine has shown that goitre can be produced by abnormal foods—such as livers, overcrowding, and insufficient water supply. Changes in food and environment of these fishes affected the gland. In mammals—rats, puppies, lion cubs—likewise, goitre has been produced by food—diet composed solely of raw meat.

These hyperplasias are, as a rule, associated with pronounced decrease of colloid and of course its iodine content. Marine has suggested that the thyroid gland in exophthalmic goitre has the same effect on patients or animals as any other gland that has the same amount of iodine. In other words, it appears that exophthalmic goitre is not a condition of hyperthyroidism, but, on the other hand, hypothyroidism—due to deficient iodine. Attempts to produce the pathological changes as seen in the thyroid in exophthalmic goitre by the administration of thyroid or iodine containing substances have failed.

Investigators have shown that there is, as a rule, a rapid reversion to the normal histological picture when iodine is given to animals with hyperplastic thyroids. Bensley substantiates these observations of others. Opossums kept in captivity all winter and which showed high degrees of hyperplasia of the thyroid and only traces of colloid demonstrated marked colloid involution after treatment with the syrup of iodide of iron. Thyroids from animals thus treated with syrup for from seventeen to twenty-five days showed a pronounced reformation of follicles with colloid. Practically all the regular epithelium contained droplets of colloid varying in size.

In light of these experiments and observations, the majority of clinicians still hold to the old view that exophthalmic goitre is a condition of hyperthyroidism

and that the administration of thyroid or any iodine containing substance would be but to aggravate the symptoms. Surgeons, as a rule, are pronounced in this view, judging from the great number of thyroidectomies performed yearly and with apparently excellent results. So satisfactory have been the reported results of surgeons, that they have so impressed the average clinicians of the imperative-ness of surgical intervention in exophthalmic goitre, that the latter have taken this form of therapeutics as the only one.

Still such clinicians as Professor Jane-way and Professor Barker call attention to the frequency of improvement and permanent cures of pronounced cases of exophthalmic goitre without surgical intervention.

Thyroid and Thymus in Graves Disease.

That the thymus gland is frequently hyperplastic or persistent in Graves disease has been known for some time. In the proceedings of the Johns Hopkins Hospital Medical School (J. H. B., Feb., 1915) Professor Halsted calls attention to the relation of the thymus to Graves disease. His comments are, in part, as follows: That an enlarged thymus has been found in at least 95 per cent of the fatal cases of Graves disease is claimed by Dr. Capelle in Professor Carre's clinic, while Dr. Albert Kocher concludes, "It is, however, remarkable that in quite a large number of the Basedow patients there is found a late hyperplasia or late involution of the thymus." Dr. Capelle treated successfully a typical case of exophthalmic goitre by resection of the thymus without molesting the thyroid at all. Others have confirmed this work of Dr. Capelle.

The thymus then may be responsible for some of the symptoms noted in Graves disease. Where lobectomy has failed to relieve the patient, a persistent thymus may be responsible. It has been known for some time that X-ray causes marked involution of this gland. With a view of determining whether persistent

thymus is in any way responsible for the unsatisfactory results after thyroidec-tomy in Graves disease, Professor Halsted selected six of his cases on whom double lobectomy had been performed, but the results had been far from satisfactory. X-ray treatment of the thymus was begun with a view of instituting involution. "In each case the result of radiation was prompt and striking."

—————R—————

Bumsted (Med. Rec., March 20) states that neutral quinine hydrobromide, in five-grain doses three or four times a day, is of decided value in more than half the cases of exophthalmic goitre, and that iodine can be safely used only where the thyroid is undergoing degenerative changes. In his opinion, of all the glandular extracts which have been tried, thymus has given the best and most permanent results, and its effects are greatly increased by giving with it small doses of adrenalin.

—————R—————

O'Day of Portland, Oregon (N. Y. Med. Jour., April 3), reports his experience in exophthalmic goitre complicated with diabetes. He found that the diabetic condition disappears in direct ratio with the steps of the boiling water destruction of the thyroid. He used the boiling water injection method of Porter, and found that the urine became negative in a short time and the glycosuria did not reappear on increasing the amount of carbohydrates consumed.

—————R—————

A clipping from a Michigan paper, just received, states that the Supreme Court in that state has recently handed down a decision upholding the constitutionality of the Medical Act of 1913 and holding that chiropractors come under the provisions of the act and must submit to an examination before they will be granted a license to practice.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - - - Editor

ASSOCIATE EDITORS—C. W. REYNOLDS, C. C. GODDARD, HUGH B. CAFFEY, O. P. DAVIS, W. E. CURRIE, ARCH D. JONES, K. P. MASON, O. D. WALKER, C. S. KENNEY, D. R. STONER, J. A. DILLON, W. F. FEE.

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**Forty-eighth Annual Meeting of the
Kansas Medical Society, Wednesday,
and Thursday, May 5th and 6th, 1915.**

The meeting will be held in the Masonic Temple and a dinner will be served on the evening of Wednesday in the same building. This dinner will be followed by a joint paper by Doctors Beckman and Carman of the Mayo Clinic, Rochester, Minn. The subject of their paper will be "Peptic Ulcer, Its Diagnosis and Treatment." The completed program will be found on another page.

The local committee is arranging its plans in anticipation of the largest attendance ever had at a Kansas State Medical Society.

The staff, both at St. Margaret's and Bethany Hospital, are arranging for some special clinics on both Tuesday and

Friday morning. That will be the morning preceding and the morning following the regular meeting.

—R—

Notice.

The Committee on Necrology would like to have the names of all deceased members who have died during the past year.

There will be an hour designated in the regular program to hear eulogies delivered by some member selected by the society.

Will the Councillors, or Secretaries of County Societies, please send me the names of members who have died during the year, that arrangements may be made for that hour.

DR. W. F. SAWHILL,

President and Chairman Committee on Necrology.

Concordia, Kans.

—R—

Epidemic Jaundice.

During the late fall and winter months a good many cases of acute ferbrile icterus, of an apparently infectious character, have been reported from Topeka and neighboring towns. While our collections of cases hardly justifies the distinction of an epidemic, they were unquestionably of an epidemic infectious type. Several of the cases have been admitted to Christ's Hospital, a few of them with a fairly justifiable diagnosis of appendicitis and a few others with a diagnosis of gallstones. None of them was operated, however, and in a few days the nature of the affection was disclosed. The reports of one or two cases will illustrate in a general way the symptoms manifested by all of them.

Mr. C. was a student at the university and, about December 1, suffered a slight indisposition, with headache, nausea, loss of appetite and general malaise. After a couple of weeks these symptoms had practically disappeared. About January

first these symptoms returned in a more violent form and there was backache, pain in the limbs, nausea and fever ranging from 101 to 104 degrees. On January 3rd he had a severe chill, followed by high temperature, dyspeptic symptoms, pain in the region of liver and stomach and colic pains in the bowels. These symptoms continued with more or less severity for about one week, when jaundice developed and continued for about a month. During the acute symptoms the pulse ranged from 38 to 120. The liver was slightly enlarged. The urine contained much bile pigment and the stools were clay colored.

Mrs. H. S. was admitted to the hospital on January 28, with the following history: On January 24 she had pain in right side, followed by severe chill, no vomiting or nausea. Was seen next day by family physician and a diagnosis of appendicitis was thought most probable. On entrance to the hospital the patient had a temperature of 102 degrees. Right side was rigid and boardy with pain throughout the abdomen, more marked on right side. There was also pain in the chest. Patient complained of sore throat and the pharynx and fauces showed slight congestion. There was also cough but no expectoration. Blood and urine were negative. Temperature continued, 100 degrees in the morning and 102 degrees in the afternoon, gradually decreasing until it became normal on the sixth day. The cough increased and continued throughout stay in hospital, paroxysms often ending in vomiting. No sputum and no rales. The pain in right side and rigidity had almost disappeared at the end of the first week, when the jaundice was noticed in the conjunctiva and in the urine. Jaundice increased to moderate degree and continued to the end of the second week, when the patient left the hospital. There was no perceptible enlargement of the liver and no tenderness over gall bladder.

Another case in which the symptoms were less violent and of shorter dura-

tion was that of Mrs. B. She began with a rhinitis and all of the usual symptoms of an attack of influenza. Temperature of 101 degrees continued for a few days and then declined. Three days later she had a temperature of 102 degrees with pain and soreness in abdomen. A little jarring of the ear caused severe pain in the region of the gall bladder. Jaundice appeared next day. There was persistent vomiting of sour transparent material with no bile. Stools were white and there was bile pigment in the urine. Temperature continued for three days and then declined. She was sleepless during the fever stage. Jaundice began to disappear on third day and was all gone by the end of the week.

In none of these cases was the jaundice so pronounced as that which is seen in gall stone cases.

There is not a complete correspondence between these cases and the typical cases of Weil's Disease, as they were reported in the early nineties. Those cases were of more violent onset and the symptoms were more pronounced. There was always definite enlargement of the spleen and of the liver and nearly always albuminuria with casts. In those days Weil's Disease was regarded as distinct from the milder forms of epidemic infectious jaundice, but more recent writers appear to have abandoned a distinctive classification and Weil's Disease is used synonymously with Fiedler's Disease, Acute Febrile Jaundice, and Epidemic Catarrhal Jaundice. It is described by Anders as "An acute febrile disease, probably specific in origin and characterized by jaundice, remittent fever, and muscular pains."

In 1886 Weil first described the disease as an infectious jaundice occurring in epidemics in various parts of the world. The nature and origin of the infection is not definitely known. Jaeger, in 1892, claimed to have isolated, from the urine during life and from the tissues of fatal cases, an organism which, inoculated upon lower animals, caused

lesions analogous to those found in man. This organism was called "bacillus proteus florescens." Seven of Jaeger's cases apparently contracted the disease from bathing in a river, the water of which was found to be defiled. An epidemic among the fowl on the banks of a tributary stream occurred. The same organisms were found in the fowl and by inoculation similar lesions were produced in other animals. The organism was also found in the water from the stream. Observers have not all accepted the bacillus proteus florescens as the etiologic factor. Diosini considered it a non-specific poisoning of the gall-passages. Cockayne attributed it to a biting insect. Some French authors seemed to consider it a ptomaine poisoning.

Most observers state that the disease is most likely to appear during the summer months, but in the earlier reports of similar epidemics, and it had been observed for at least ten years before Weil's description, it seems to have been most prevalent from September to December.

Practically all of the reports agree as to the enlargement of the spleen and liver and derangement of the functions of the kidneys. Autopsies have revealed a fairly constant group of lesions. There was granular and fatty degeneration of the liver cells, with evidences of interstitial hepatitis, without catarrh of the gall-ducts and without obstruction to the flow of bile. There was degeneration of the renal epithelium with indications of interstitial nephritis.

Werther, in 1889, presented an analysis of 71 cases of Weil's Disease. In the cases under observation the temperature reached its maximum on the first or second day and continued high for three or four days, with a notable remission during the night between the fourth and sixth days. Subsequent defervescence was by lysis. There was headache and vertigo. Usually there was some mental dullness, general malaise, and, sometimes, somnolence. At night

the patients were restless. Muscular pains, especially in the thighs, and hyperaesthesia were usually present. There was excessive thirst and nausea and vomiting were present in the early stages. The respiration was frequent. The pulse was at first frequent, often small, sometimes dicrotic. There was diarrhoea more frequently than constipation. The stools were not always clay-colored. The urine was diminished, frequently albuminous, but the functions of the kidneys were always restored. The spleen was enlarged in many cases and the liver in a smaller number.

Freyhan, in 1894, reported what was called a typical case. A man, 32 years of age, was suddenly seized with a chill, fever, headache, followed by semi-coma, and next day had jaundice, dry and coated tongue, temperature of 102 degrees, pulse 100. Urine was dark, containing bile pigment, trace of albumen, some hyaline casts, a few red and white cells. The liver and spleen were enlarged. The stools were loose and passed unconsciously. The fever terminated by lysis in a few days, the other symptoms disappearing at the same time. Severe pains occurred in the calves.

Various observers have reported epidemics of acute infectious icterus, with symptoms similar to those described by Freyhan, in which the claim was made that it was a disease distinct from Weil's Disease. In 1890, Meinert described an epidemic of icterus occurring among children. His review covered a collection of 518 cases in Saxony, during the autumn of 1889. In these cases there were fever, vomiting, constipation, congestion of liver and spleen, lasting for three or four days. One or two days after defervescence, the icterus appeared and lasted about eleven days. Disorders of the respiratory tract and especially influenza seemed to predispose to the attack. Meinert insisted that this was a disease, essentially infectious, distinct from Weil's disease, and not to be con-

founded with any other disorder. However, the symptoms do not differ so materially as to justify a separate classification. The most notable difference being that in all of these cases the icterus appeared after the subsidence of the initial stage and continued for a longer time. There may also be noted the association with disorders of the respiratory tract, especially influenza.

Epidemic jaundice was quite prevalent during the civil war and the report of the Surgeon General notes that many diseases were accompanied with jaundice. There were, however, a large number of disorders in which the change of color was so prominent a symptom that the disease was recorded as jaundice in over seventy thousand cases among white troops only. Generally these cases were sporadic, though sometimes a series of cases in a command constituted an epidemic, and a review would classify about eleven thousand of the cases under the heading of "epidemic jaundice."

One case-book reports the symptoms, which may be abstracted as follows: Usually excitement of the pulse; headache; backache; nausea and vomiting; constipation or diarrhoea usually preceded or succeeded the invasion; pain in lumbar or epigastric region; generally the right hypochondriac region was tender; occasionally pain in right thorax, seldom in left; nausea and vomiting usually ceased in first week. Appetite was absent; the stools light in color, deficient in bile; urine dark; eyes assumed yellowish, green, muddy color. The skin showed a yellow green tint; tongue brown, dry, glazed or cracked.

Surgeon Hazlett, Second West Virginia, reported sixty-four cases of epidemic jaundice in three months. Surgeon Brown, Seventieth New York, reported, one month, "many cases of icterus of miasmatic origin." Surgeon Grimes, Thirteenth Kansas, reported quite a number of cases of jaundice, saying the disease resembled an epidemic.

The Surgeon General says: "Many with the epidemic relations were probably due to an action of the *malarial influence*, similar to that which in its intensity gives rise to the haematuric variety of *malarial fever*. It was well recognized that jaundice was of more frequent occurrence in malarious than in non-malarious localities."

There is a record of an epidemic of jaundice at Talladega, Fla., which is in a malarious district, in 1907. Dr. D. P. Dixon reported two hundred cases, twenty-five were children and of these eight were infants. The blood of the latter contained plasmodium malariae. Symptoms; Headache; malaise; drowsiness; abdominal pain; cramps in legs; subsequent vomiting; moderate temperature, rising in some cases to 104 degrees; chills and chilliness. *Jaundice* came on *several days after* the appearance of the first symptoms, and at about the time the temperature was subsiding.

Dr. R. V. Dolby, South Africa, reports epidemic jaundice: "Patients will come complaining of loss of appetite, nausea, vomiting, a feeling of malaise, and always with a history of constipation or diarrhoea. In many patients the temperature will be 100 degrees to 103 degrees, while in malarial patients an attack of ague ushers in the disease. In a few hours great pain in the epigastrium and right hypochondriac region develops. The liver is enlarged. Later the yellow discoloration of the skin and eyes shows itself. The disease lasts from ten days to three weeks."

The cases observed during the past winter correspond most closely with those reported by Meinert, whether they be dignified by the name of Weil's Disease or be classified as cases of acute infectious jaundice.

Laboratory findings have not confirmed the conclusions of Jaeger as to the responsibility of the bacillus proteus florescens in the causation of the disease, and they have added nothing to our knowledge of its etiology.

Editorially, the Medical Record (Vol. (LXXXIII, p. 298) says of epidemic catarrhal jaundice: "Actual epidemics may occur. A distinction must be made between this disease and that of Weil. The latter differs from the former mainly in degree of severity."

—R—

The Governor Eliminated It.

No one questions the right of the Governor to veto any appropriation which is excessive or unnecessary. The people hold him, in large measure, responsible for the cost of his administration; they also hold him responsible, in an equal measure, for the maintenance of a standard of efficiency, creditable to the state, in all public institutions. No one has a right to question the exercise, by the Governor, of his prerogative in vetoing the appropriation for the Rosedale Hospital, if his reasons for doing so are sufficient. But a careful review of the situation will convince most of us that the reasons given in his message, which we quote below, do not justify his decision.

"I find it necessary to exercise the executive's prerogative to eliminate certain items in appropriation bills.

"I have stricken out the item appropriating \$50,000 for a new hospital building in connection with the school of medicine at Rosedale. I fully appreciate the work this department of the University of Kansas is doing, but doubt whether the work done is commensurate with the cost. This school graduated ten physicians last year at an expense to the state of \$30,000 above all fees and tuition. The senior class this year numbers twelve members and the expense to the state will exceed that of last year.

"Kansas will, of course, maintain its university, but with our primary and secondary schools in their present condition, and so urgently in need of money, opinion is divided as to the wisdom of the maintenance of professional schools at the state's expense, when there is no lack of them in the educational field. Certainly Kansas cannot afford to pay from the state treasury \$3,000 each for the education of new physicians. The \$5,000 asked was for the first cost of the building. Its erection would call for greatly increased appropriations for maintenance at the next session."

The Governor estimates the value of the Rosedale institution to the state by the number of physicians it produces, and by dividing the total cost of maintenance by the number of students graduated, he con-

cludes that it costs the state \$3,000 for each physician it produces. This method of calculation is hardly fair, but it is equally as fair when applied to the other state schools.

As we have not at hand the figures from which the Governor drew his estimate, we will take the appropriation for the Rosedale school and hospital and dispensary, for 1915, the amount of which is \$41,569.

We have just received a statement from Rosedale to the effect that there are now fifteen students finishing the course. The cost per graduated physician then, estimated according to the method adopted by the Governor, will be \$2,771.

The total appropriation for the University for 1915 was \$857,113. Deducting from this \$175,000 appropriated for new buildings, we have the cost of the state for the issuing of 250 degrees of all kinds, \$682,113, or \$2,722 for each degree conferred. The excess of cost for the education of a physician over the average cost for finished product of all departments of the University, including arts and sciences, is \$49.

But the report for last year will show that during the year a large number of charity patients were cared for at the Rosedale Hospital—amounting to 5,745 free hospital days. The cost per hospital day for maintenance is shown to be \$1.71, which is really lower than it should be for a hospital of this kind. At this rate the total cost for the care of these free patients would be nearly \$10,000.

While these cases are used for the purpose of instruction, the caring for them is distinctively a function of the state apart from education; and its cost should not be included as a part of the cost of educating medical students any more than the maintenance of the Topeka Asylum should be charged to the training school for nurses at that institution.

But if we deduct from the amount appropriated for the school and hospital the cost of caring for the free patients in the hospital—for which \$10,000 is a very low estimate—we would have \$31,569 to rep-

resent the cost to the state for the finishing of 15 medical students, or a cost per each of \$2,104, which is \$618 less than the average cost for the finished product of all departments.

The Governor says: "Opinion is divided as to the wisdom of the maintenance of professional schools at the state's expense, when there is no lack of them in the educational field." Why the professional schools only? What better argument is there for the maintenance of industrial departments or for the agricultural college than for the school of medicine, school of law, school of journalism, or school of engineering? Are there more or better reasons for the maintenance by the state of the collegiate departments of the University than for the maintenance of its professional schools? There is certainly no lack of colleges in the educational field.

Scientific farming and scientific stock raising are of no more economic value to the state than the intelligent conservation of the health of the people.

The benefits derived from the medical school can not be estimated by the number of physicians it produces each year, for, even beyond the great work being done for the relief of the state's poor afflicted citizens at the Rosedale Hospital, there are inestimable benefits which the medical profession derives from the research work being prosecuted by the faculty of this school. The recent advances in medicine have depended to a large extent upon the investigations made by the salaried instructors in the well-equipped medical schools of the country. Our own medical school has of late years accomplished a great deal for the enlightenment of the profession upon the etiology and pathology of disease through its research work; and when the results of this work are made available to the profession, the people will reap the benefits through the increased efficiency of their physicians.

—————R—————

It is unnecessary to tell you that there will be a good meeting and a good time at Kansas City, May 5 and 6. There is

always a good time there. The program will assure you that there will be a good meeting.

—————R—————

This Journal, together with quite a large number of other medical journals, will devote the July number entirely to the subject of cancer. Reports of cases and literature of various kinds bearing upon the subject will be welcome. All copy for this number should be in the hands of the editor by June 15th.

—————R—————

We are particularly pleased in being able to report that we have finally made arrangements for regular reports upon the medical work being done at the University Medical School. We are sure that these reports will add very materially to the interest of the Journal and will be of great value to its readers. The first installment appears in this issue.

—————R—————

Dr. C. W. Lathrop has recently opened up the Lathrop Hospital at Norton. It is a two-story brick building and is equipped with all the modern conveniences for the treatment of surgical and medical cases. It has a capacity of fifteen beds and was constructed at a cost of about \$15,000. A training school for nurses has not been established but is being contemplated in the future.

—————R—————

The proprietor of a so-called "Trichological Institute" in New York is sending letters to physicians, asking them to refer their patients, who have hair troubles or who want to keep from having hair troubles, to him for advice. This is what he says of himself in this letter:

"Mr. Parker has had 40 years' practical experience in treating the hair, daily treating from 80 to 100 heads personally in his modern and up-to-date establishment here, besides giving his personal attention to a large number of mail inquiries from all over the country. He is admittedly one of the best mentally equipped hair specialists in this city."

That is certainly going some. Suppose he puts in ten hours a day and only treats eighty patients, that would be seven and one-half minutes to the patient. We imagine it must also take some time to "personally" attend to his "large number of mail inquiries" and for the tonics which are "manufactured by him personally."

—R—

The following is an exact copy of a card which appears on the envelopes used by a certain Kansas practitioner:

"The discoverer of only positive cure for Catarrh, Hay Fever and Tuberculosis, by inhaling a dry gas which is a powerful Germicide and antiseptic, at once destroying the microbes and producing a healing process, breathing it directly in all parts of the head, bronchial tubes, tuberculosis of the lungs, and in the blood."

—R—

A few months ago the manufacturers of Wine of Cardui brought suit against the American Medical Association for the recovery of damages alleged to have been caused by the publication of articles derogatory to the business of this firm. The kind of publicity given by the Journal of the A. M. A., when it starts a campaign against a preparation of this kind, is very likely to be somewhat damaging to the business of its manufacture and sale. The Council on Pharmacy has usually had the evidence to back up its assertions before it has started anything against a patent medicine. It is not very probable that the reputation of Wine of Cardui will be greatly benefited by the evidence brought out in this suit.

It is reported that the plaintiffs are trying to secure, from physicians all over the country, testimonials as to the therapeutic value of this compound. It is unnecessary to suggest to our readers that such testimonials could be used to good advantage by these people in rebutting the charges made by the A. M. A.

Kansas physicians are not very likely to sign anything of this kind. A Kansas

physician who would sign a testimonial to the virtues of any preparation, containing even a reminiscence of alcohol, had better move out of the state.

The Corral

By O. P. Davis

"If Thoughts Run Wild, Put Them in Bounds."

The state legislature has stepped in to save the people from the doctor by passing the "Anti-Fee-Splitting Bill." We have heard many times about the debt the public owes to the family doctor for his efforts, not only in curing but in preventing disease. We have looked upon canvasses from the brushes of celebrated artists, portraying the heroic deeds, the struggles and privations of the doctor in peace and war, in storm and flood, in behalf of humanity. Every language abounds in proverbs about the unrequited labors of the doctor. But here is Kansas with a law on her statute books to save the people from the doctor's greedy rapacity; to protect them not from the occasional villain in the profession, but from the profession as a whole.

* * *

Let me quote a portion of an editorial in the Topeka State Journal to show you that I am not interpreting the intent of the new law too strongly. "The family doctor, who is the most trusted individual in a community, sees a case that he deems prospective of a surgical operation. He takes his patient, or sends him, to the surgeon with whom he has a pre-arrangement for 50 or more per cent of the fee, for the operation. Thus it is seen that the physician places his surgical patient on the market and delivers him to the surgeon with whom he can make the best bargain. The busiest fee-splitters are the surgeons who exact exorbitant fees and rebate the handsomest checks to their patrons. * * * With the development of surgery, this practice

has grown to almost universal proportions."

How do you like this generous estimate of your character, my fellow mercenaries? Can you think of any more offensive, any more malicious insult that could be framed about our profession than this? I have been waiting to hear an expression of indignation or of resentment in some of the other newspapers—at least a faint breath of protest in our behalf in some friendly sheet—but I have waited in vain. And we ourselves are meekly turning the other cheek for any smarter slap that may be coming our way.

* * *

I am led to make a series of more or less desultory observations on medical fees in general, and on the disposal of fees in particular.

There has long been something the matter with the system of fees charged by the medical practitioner for his services. It has long been customary to charge a flat fee of one or two dollars per visit in the town or city, of one dollar or less for an office consultation. Such charges are uniform and quite generally adhered to by the physicians of any given locality, not by agreement, but in obedience to prevailing custom, and regardless, for the most part, of the nature of the ailment or of the amount of responsibility assumed by the physician in its treatment.

* * *

A typhoid fever patient, skillfully conducted through the course of his disease, and guarded against complications, pays his physician less than does another patient, similarly afflicted, who was perhaps less skillfully treated and was therefore ill longer. For in the former case the disease was shortened and therefore fewer visits made. In other words, charges for medical services, on the basis of the number of visits made, put a premium, not upon efficiency of treatment but upon that easy-going, happy-go-lucky management that is the

very antithesis of efficiency. If the conscientious practitioner feels prompted to exercise an unusual watchfulness over a case, he is apt to be deterred by the fear that the patient or his friends may ascribe to mercenary motives his extraordinary solicitude, knowing, as they do, that the visit is the basis of the charge made.

* * *

The country visit is the service for which the most ridiculous plan of charging is in vogue. In the country a visit is charged for on a mileage basis—so much a mile, one way. And this does not, as a rule, vary according to state of the weather or condition of the roads. Every doctor knows that this is not a fair way to gauge the charges for his services. If the roads be muddy or hilly or otherwise difficult, it may require several times as long to make the journey as when they are the opposite. Why should the time element not be a prime consideration? But it is not! In fact, time and responsibility seem to be left out of consideration in assessing the fees to be charged, whether in city or country practice, except perhaps in occasional rare instances.

* * *

In obstetrics, a flat fee is charged, usually considerably in excess of that charged for a visit for ordinary ailments. But this fee has remained quite stationary, or at least is little greater than it used to be before the exactions of modern asepsis made obstetrical technique more intricate and laborious. The prevailing obstetrical charges are little in excess of those demanded by the midwife.

* * *

The greatest burden of family practice is the sense of responsibility, the worry and anxiety that every serious case imposes upon the physician. All this he carries with him on his rounds and even to his pillow. But he charges no fee for this and expects no extra compensation. The telephone makes many a demand

on his time and patience, and advice given through this channel is usually gratuitous. The telephone saves the patron many a step and many a dollar, but it cheats the doctor out of many a visit and hence deprives him of many a fee. He does not begrudge his patients what he thus gives them so freely, and makes no count of it in the day's work. But it is one of the leaks in the loose-jointed business system to which all family physicians have fallen prey all these years.

* * *

The physician who dispenses will find it hard to separate the charge for his professional services from the concurrent charge made for the medicines furnished. At least there will be confusion in the minds of patrons between these two items, and they will frequently wish to prescribe for themselves a quarter's worth of this or that medicine which was successfully employed in some previous sickness. And the doctor, unless he holds a tight rein, will find himself riding into a blind alley, making himself a purveyor of medicine, and degrading himself and his calling below the status of the merest vendor.

* * *

The surgeon got off on a better foot. He began by charging a good stiff price for his services. His work is spectacular and impressive, and the spectacular and impressive usually come high. He wears certain grewsome vestments and inhabits awesome precincts. With the heraldic device, "Noli me tangere," on his visor, and clothed in gown and gauntlets, he bids all stand aloof while bravely he invades the citadels of life. He is exempt from many of the penalties which our peculiar system of ethics imposes upon the general practitioner. The latter must not advertise himself, either openly in the public prints, or by suggestive methods, to the people on whom he depends for support. Even the frequent mention of his name in newspaper reports of sickness or accident is offensive to our medical traditions. But the sur-

geon is permitted to advertise himself to the general profession, on whom he depends for his support, in many and various ways. He publishes reports of his successful doings in the medical journals and mails reprints thereof broadcast to the profession. He establishes clinics at which to display his skill, and announces such exhibitions openly and conspicuously to physicians in general. He devises surgical methods and invents instruments, modestly endowing them with his name. He frequents medical meetings and entertains the members there by elaborate description and stereoptical illustrations of his doings. He gets prominently connected with medical institutions and faculties, and even organizes himself into exclusive societies and confers upon himself the insignia of a most decorous fellowship. He does all this without being criticised or branded as an advertiser, but rather has his professional prestige greatly increased thereby.

* * *

Naturally, the men of the profession in the humbler grades, who see only the dull and monotonous routine of daily practice, are more or less susceptible to these impressions and are influenced to some extent in this way to send their surgical cases to these gentlemen—at least such cases as they can control. For the surgeon these days does not confine himself to the profession for his patronage, nor depend wholly on referred cases. The people are learning how to go direct to the surgeon, nowadays, and are not discouraged by him from so doing, to any great extent. Even while a patient is under the family doctor's care it not rarely happens that a prospective, though perhaps not urgent, operation is deferred until such time as the attending physician can be dispensed with, whereupon recourse is had directly to the surgeon. Indeed, the fame of the surgeons, often self-created, filters down through the various channels, and even through the lips of the family doctor,

until it permeates the public mind, and the people come to have strong preferences in the matter of the selection of a surgeon from the various available celebrities.

* * *

The desire to get the surgeon's services first hand is largely due to the hue and cry that has been raised of late about fee-splitting. Certain self-righteous surgical gentlemen, or would-be surgeons, have propagated the idea that the large fees charged by surgeons are thus large because of the alleged fact that such fees are to be divided with the family doctor. As a result of this propaganda, the patient or his next friend often goes shopping and gets the prices of the contemplated operation from the surgeons at first hand. And in no case, or at least rarely, is the price found to be lower than when the doctor, of the common garden variety, has acted as a go-between and has accompanied the patient to the hospital.

* * *

Of course, when a patient needs an immediate surgical operation, there is but one thing taken into prime consideration, namely, Who can do it best? The price is an afterthought, and often left out of the question. Here the family doctor may have a good deal to say in the choice of a surgeon, as should be the case. But it is not entirely left to him, as a rule, even in such an emergency, as any physician will testify. In these days when surgical operations are so common, the people have a habit of forming estimates about surgeons and their abilities for themselves. The outcome of the various operations of which they have personal knowledge, and the testimony of their various acquaintances who have been under the knife, have great weight with them, and often govern them in their final decision.

In many cases of less urgency the cost of the proposed operation is deliberately discussed beforehand. And here again, as has been said before, the people are

not so uninformed as might be imagined as to the prevailing prices of such procedures as are in contemplation. They are keenly alive to any marked overcharging along these lines and are very ready to cite instances where such and such a price was charged for a similar operation.

* * *

If fee-splitting surgeons charge two or three times as much as the other kind, in order to enable them to give one-half or three-fourths of the fee to the family doctor, as alleged, it should not be very hard to determine who are engaged in this very reprehensible practice and who are not. It would be an extremely easy matter, in the face of the general knowledge already possessed by the public along the line of prices. As a matter of fact the prices asked by all surgeons for any given grade of operation do not differ by very wide margins, whether the case be referred or direct. Just as the visit and consultation prices of general practitioners are not widely different, so surgical prices are not conspicuously different. They would not dare be, from motives of self interest. If they were radically lower in price they would arouse the suspicion, if not the open accusation, of inferiority that goes with cheapness, and no surgeon aspires to such notoriety. If excessively high in price, they would repel a large class of good practice, which though willing to pay the common or prevailing fees, would yet vigorously object to paying what they knew to be much more. And the family physician would object to having himself suspected of being a partner in such an unusual fee, as would naturally be the case, however unjustly, if the price charged were excessive. The law of self-interest and self-preservation on the part of both physician and surgeon will therefore keep surgical fees from being conspicuously at variance with a well-known average.

* * *

If then the patient or the patient's

family have such a prominent voice in the choice of a surgeon; if the price charged for an operation cannot be far above or below what is charged by any reputable surgeon; whence comes the accusation that the patient is the victim of an outrageous holdup game between surgeon and physician? It obviously arises from or is inspired by those who, failing in their ambitions of gaining surgical practice and prestige, or of holding the same when once gained, attribute their failures and shortcomings to alleged mercenary methods, clandestine agreements, conspiracies, and unfair competition of various kinds employed by their colleagues.

As for the people, who are the supposed victims of this nefarious practice, they are quite able to take care of themselves in the matter of employing physician or surgeon, and there is little danger that they will often dump too much of their coin into the medical coffers. They are quite able to look after the driving of a bargain in the matter of price, and are quite apt to escape paying at all in not rare instances. No legislation of any kind is going to determine for any man or family who shall be their physician or who their surgeon. This howl does not emanate from the aggrieved and injured public. It comes from other quarters, and if you will keep still and move your ears a little you may easily discover the source of the noise.

* * *

Now that the anti-fee-splitting law has been enacted, we should expect a great reduction in the cost of surgical operations, if the division of fees has indeed kept the prices high, as alleged. An operation for appendicitis heretofore costing about \$150 or \$200 will be marked down to as low as \$50 or even \$25, according to the degree of bifurcation of fee heretofore practiced. Of course, the "high-class surgeons," who have never split fees, will continue to charge the regular price, as heretofore,

of from \$150 up to the highest the patient will stand for.

* * *

A surgeon of this state recently said, in the course of a conversation on this subject, that the strongest argument to his mind against the division of fees, openly or otherwise, is that such participation in the surgical fee by the family doctor has the effect of making the latter's recommendation of operation, by which the patient should be governed, appear mercenary, or perhaps biased, by the prospect of unusual financial reward. He seemed to think that the physician's argument in favor of operation should be entirely disinterested; that the patient should pay him only for his attendance prior to the operation and perhaps a per diem for acting as escort to the hospital, but no more. I interjected the remark that, if the family physician is so untrustworthy as this attitude toward him would indicate; if the family has so little confidence as to thus distrust his motives in the giving of vital advice, he certainly should not receive any fees in the case at all, first or last; that indeed he should not be allowed to practice medicine at all.

* * *

The public are concerned about only two things along this line. First, they want a surgeon in whom they have confidence to do the work for them; and in this they are guided by information they have gained from their own observation and inquiries and by the advice of their family doctor, in whom they presumably have confidence, or should have. Second, they are willing to pay what the work is worth in the surgical market; and in this they are made acquainted by inquiry and observation. As to the ultimate disposal or destination of the fee—as to what the surgeon does with his money or the family physician with his—they care not. If they are fair-minded they are apt to consider that they have had their money's worth and to let it go at that.

SOCIETY NOTES.

Program of the Forty-eighth Meeting of the Kansas Medical Society.

To Be Held in the Masonic Temple, Kansas City, Kansas, Wednesday and Thursday, May 5th and 6th, 1915:

PROGRAM.

WEDNESDAY, MAY 5th.

President Address—

Dr. W. F. Sawhill, Concordia.

"Subdural Injections of Salvarsanized Serum in Syphilogenous Diseases of the Nervous System"— Dr. P. B. Matz, Leavenworth.

"Typhoid Fever"— Dr. R. G. Doan, Lucas.

"Vaccine Treatment of Typhoid Fever"— Dr. P. W. Darrah, Leavenworth.

"The Factor of Age in the Incident and Death of Typhoid Fever"—

W. J. V. Deacon, Topeka.

"Treatment of Hay Fever"—

Dr. R. C. Lowdermilk, Galena.

"Some Practical and Economical Features Facing the Medicine Man"—

Dr. W. G. Norman, Cherryvale.

"The Value of Laboratory Findings to the General Practitioner"—

Dr. F. L. Flack, Coffeyville.

"An Odd Piece of Liver Surgery"—

Dr. Henry Brunig, Hillsboro.

"Toxemia in Pregnancy"—

Dr. E. A. Reeves, Kansas City.

"Appendicitis in Pregnancy"—

Dr. A. J. Weaver, Concordia.

"The Mechanism of Pelvic Support"—

Dr. Frances A. Harper, Pittsburg.

"Relation of Country Physician to City Specialist"—

Dr. J. S. Fulton, Kiowa.

"Epidemic Influenza in Children, With Special Reference to Gastro-Intestinal Complications"—

Dr. F. H. Smith, Goodland.

Banquet, 6 P. M., May 5th, at Masonic Temple.

"Peptic Ulcer or Gastric Cancer"—

Drs. Carmen and Beckman, Rochester, Minn.

Carcinoma of the Cervix"—

Dr. C. C. Nesselrode, Kansas City.

THURSDAY, MAY 6th.

"Fractures"— Dr. R. C. Lowman, Kansas City.

"Pyloric Obstruction in Infancy"—

Dr. G. L. McGonigal, Kansas City.

"Progress in Infant Feeding"—

Dr. Charles Stein, Glasco.

"The Relation of Chronic Infection of the Tonsil to Certain Systemic Diseases"—

Dr. W. R. Dillingham, Halstead.

"A Theory of the Function of the Adenoids and Tonsils"— Dr. T. A. Jones, Liberal.

"Clerical Significance of Urinary Findings"—

Dr. R. H. Hertzler, Newton.

Interstitial Nephritis"—

Dr. J. A. H. Webb, Stafford.

"Relation of Various Streptococci to Rheumatism and Endocarditis"—

Dr. Fred Morley, Kansas City.

"The Necessity of Medical Inspection in the Public Schools"—

Dr. I. B. Parker, Hill City.

"Every General Practitioner a Public Health Officer"— Dr. Lloyd A. Clary, Hutchinson.

"Some Interesting Cases of Protein Sensitization"— Dr. J. G. Missildine, Parsons.

"Some Complications of Catarrhal Pneumonia"— Dr. T. C. Kimble, Miltonville.

"Nature and Treatment of Decidual Moles"—

Dr. F. M. Smith, Lyndon.

"Tonsillectomy in Acute Tonsillitis"—

Dr. T. L. Higginbotham, Hutchinson.

Paper—

Dr. J. L. Grove, Newton.

"Report of a Case of Brain Tumor"—

Dr. W. S. Lindsay, Topeka.

"Methods of Blood Transfusion"—

Dr. W. M. Mills, Topeka.

"The Intra-abdominal Use of Sulphuric Ether in Pelvic and Abdominal Surgery"—

Dr. U. A. D. Collelmo, Pittsburg.

Committee on Arrangements.

Dr. L. D. Mabie, Dr. T. S. McDougal,

Dr. C. C. Nesselrode, Dr. C. J. Lidikay,

Dr. J. F. Hassig, Dr. J. E. Sawtell,

Dr. Hugh Wilkinson, Dr. W. F. Fairbanks,

Dr. Preston Sterrett, Dr. R. C. Lowman.

Labette County Society.

The Labette County Society met on Wednesday, the 24th, at the Matthewson Hotel in Parsons. Dr. J. G. Missildine presided.

Dr. J. C. Cornell reported the use of pituitrin in a difficult case of labor with much benefit.

Dr. K. R. Scott reported an interesting case of specific infection of the larynx in which tracheotomy was done, later a course of treatment cleared up the symptoms.

Dr. J. C. Cornell read a paper on "The Therapeutic Uses of the Mineral Oils."

Dr. H. C. Markham discussed "The West Internasal Operation."

A general discussion of influenza followed, a well-marked epidemic of this disease being now prevalent in Southern Kansas.

O. S. HUBBARD, M. D.,

Secretary.

Shawnee County Society.

The Shawnee County Society met in the Commercial Club rooms Monday evening, April 5th. There was an unusually large attendance. The members were expecting something good and were not disappointed. The illustrated lecture by Dr. Sundwall, on

"The Chromaffin System," occupied the evening and was interesting and instructive.

Drs. J. J. Curphy, Osage City; W. T. McLaughlin, Topeka; G. V. Allen, Topeka, and Oscar Erickson, Topeka, were admitted to membership in the society.

One application was received and referred to the censors.

Reno County and Seventh District.

The Reno County Medical Society met in regular session March 26th. Dr. W. E. Currie of Sterling, our counsellor, met with us and gave a splendid address. Three new members were added to the society.

The Medical Society of the Seventh District will meet in Hutchinson, April 29, 1915, for an all-day meeting. Program as follows:

"Gastric Hemorrhage"—Dr. J. E. Foltz, Hutchinson.

Discussion—Dr. M. Trueheart, Sterling.

"How Can We Best Limit and Control the Perils of Pregnancy?"—Dr. W. S. Harvey, Salina.

Discussion—Dr. H. E. Haskins, Kingman.

"Fractures and Dislocations"—Dr. H. G. Welsh, Hutchinson.

Discussion—Dr. C. Klippel, Hutchinson.

"Laryngectomy for Cancer of the Larynx"—Dr. P. H. Owens, Great Bend.

Discussion—Dr. W. O. Thompson, Dodge City.

"Internal Eye Complications in Systemic Diseases"—Dr. H. L. Scales, Hutchinson.

Discussion—Dr. J. H. Schrant, Hutchinson.

"A Plea for a New Specialist"—Dr. T. A. Jones, Liberal.

Discussion—Dr. N. A. Seehorn, Hutchinson.

W. F. SCHOOR,
Secretary.

Wyandotte County Medical Society.

Wyandotte County Medical Society met at the Mercantile Club rooms, Tuesday evening, March 16, 1915.

Surgical Clinic—Dr. Hugh Wilkinson, Dr. L. B. Spake.

Pathological Discussion—Dr. W. T. McDougall.

1. Congenital Club Foot, non-operative treatment, presentation of case and application of cast.

2. Chronic Osteomyelitis, presentation of case operated one month ago with dressing.

3. Sarcoma of the Thigh. Large. Presentation of case.

4. Harelip, two case, operations one week and one month respectively.

5. Tumor of the Neck, case for diagnosis

6. Ovarian Sarcoma, case report, patient five years old, tumor bilateral, metastasis.

Salpingitis—Dr. R. C. Lowman.

TUESDAY EVENING, MARCH 30, 1915.

Dr. L. F. Barney reports one case of Septic Endo carditis.

Dr. H. B. Lemmon reports two cases of Septic Endo carditis.

Dr. E. A. Reeves reports two cases of Septic Endo carditis.

Dr. H. W. King reports two cases of Septic Endo carditis.

Dr. T. S. Bourke reports four cases of Septic Endo carditis.

Dr. G. L. McGanigle, Infective Endo carditis in children.

Dr. H. Morley, Bacteriological Phase.

C. J. LIDIKAY, *Secretary.*

Golden Belt at Junction City.

The Golden Belt Medical Society held its annual meeting at Junction City, April 1st instant. Quite a number of the doctors from the surrounding country gave their patients, their Fords and themselves a rest by attending this meeting, although this reporter has seen many meetings of this society that were more largely attended. The program as published was abridged by the absence of all but two who were on the bills. But these two were there with the kind of goods to make up for any delinquencies of those who were not able, for their own very good reasons, to be on hand with their papers. Dr. Lowman of Kansas City read a good, practical paper on Salpingitis, which was freely dis-

cussed by most of those present. Dr. Milne of Kansas City delivered a lecture on Nephritis, treating the subject with special reference to the newer theories and diagnostic methods. This number also brought out quite a free discussion.

The election resulted, in the choice of Dr. Wilhoit of Manhattan for president; Dr. Milne of Kansas City for vice president; Dr. Smiley of Junction City for secretary. Abilene was selected as the place for the July meeting.

The visiting members ate supper at the Hotel Bartell, as guests of the Junction City profession, after which the evening was devoted to having a good social time in quite an informal way. Nearly every one present was required to make a speech or tell a story. Many new stories were tried out. There were even some new Ford stories. This was indeed some meeting. So long, boys! See you at Abilene.

O. P. D.

—————R—————

Meeting of the Board of Registration and Examination.

The next meeting of the Board of Medical Registration and Examination will be held at the Masonic Temple, Kansas City, Kansas, June 8, 9 and 10, 1915, for the examination of applicants to practice medicine and surgery. Respectfully,

H. A. DYKES, M. D.

Secretary.

As a matter of information to those who may wish to make application and as a matter of interest to those who are not familiar with the actual requirements for license to practice medicine in Kansas we publish below the rules governing the granting of licenses.

1. Applicants who desire to practice medicine and surgery in the state of Kansas must file their application with the Secretary of the Board at least ten days prior to the day set for the examination which the applicant desires to enter.

2. The applicant must, in every case, present his or her diploma to the board during the examination.

3. Both sides of the application blank

must be properly filled or it will not be accepted.

4. Each applicant must attach to his application an unmounted photograph, 3x4 inches, with certificate of the photographer on the back thereof, setting forth that it is a true picture of the applicant, taken within sixty days of the date of the application. A photograph larger than 3x4 inches will positively not be accepted.

5. The minimum preliminary educational requirement is a *four-year high-school course*, and, in addition, *oneyear in a college of liberal arts*, after January, 1914.

6. The applicant must be personally examined on the following subjects: Anatomy and Histology, Chemistry, Obstetrics and Gynecology, Materia Medica and Therapeutics, Pathology, Bacteriology, Theory and Practice of Medicine, Physiology, Ophthalmology, Otology, Rhinology, and Medical Jurisprudence. There will not be less than ten (10) questions on each subject and the examinations will be in writing. A general average of seventy-five per cent and a minimum of sixty per cent on each subject must be obtained. A credit of five points will be allowed for each five years of legal practice on the general average. The fee is fifteen dollars, and must accompany the application. If the applicant fails on the first examination, he may be re-examined at any subsequent meeting of the board, and will be required to pay the full fee for each examination.

7. No special permits are authorized by law and no temporary certificates are issued by the Kansas Board under any circumstances, except in a county where no licensed practitioner is located. Do not ask for a temporary permit, as it can not be granted.

8. The regular meetings of the board are held on the second Tuesday in February, June and October of each year, at Topeka, in the assembly room of the National Hotel, from 9 to 12 a. m. and 1 to 5:30 p. m., and will continue three days.

9. Candidates detected in attempting to give or obtain aid will be instantly dis-

missed from the room, and his or her papers for the entire examination cancelled.

Reciprocity.

From the letters of inquiry we have received it is evident that few of our readers are familiar with the reciprocity relations existing with other states. We print below the rules governing applications for reciprocity certificates and also a list of the states that now reciprocate with Kansas.

Applicants for reciprocal registration, from states holding such relations with Kansas, shall make their applications on the indorsement blanks furnished by this board, and the several requirements therein fulfilled. A verbatim copy of the applicant's license must be made on the Kansas indorsement blank, under No. 7, and certified to by the secretary of the state medical board from which it is issued, and upon receipt of the application, with all parts of the indorsement blank filled out, together with the reciprocal fee, which is the same as that the state from which the applicant comes requires of Kansas licentiates for reciprocal registration in the applicant's state, a certificate to practice medicine and surgery in the state of Kansas will be issued by the board unless the application should be rejected for cause. Kansas reciprocates on a basis of examination since 1901, and on diploma prior to 1901, with the following states: Alabama, Colorado, Delaware, District of Columbia, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Minnesota, Missouri, Nebraska, New Hampshire, New Mexico, New Jersey, North Carolina, North Dakota, Ohio, South Carolina, Texas, Utah, Virginia, Vermont, West Virginia, Wisconsin, Wyoming, Mississippi, South Dakota, California, Pennsylvania and Oklahoma.

Basis for Reciprocal Medical Registration.

Qualification No. 1.—That a certificate of registration showing that an examination has been made by the proper board of any state, on which an average grade of not less than seventy-five per cent was

awarded, the holder thereof having been, at the time of said examination, the legal possessor of a diploma from a medical college of good standing in the state where reciprocal registration is sought, may be accepted, in lieu of examination, as evidence of qualification: *Provided*, That in case the scope of the said examination was less than that prescribed by the state in which registration is sought, the applicant may be required to submit to a supplemental examination by the board thereof in such subjects as have not been covered.

Qualification No. 2.—That a certificate of registration or license, issued by the proper board of any state, may be accepted as evidence of qualification for reciprocal registration in any other state: *Provided*, The holder of such certificate has been engaged in the reputable practice of medicine in such state at least one year: *Provided, also*, That the holder thereof was, at the time of such registration, the legal possessor of a diploma issued by a medical college in good standing in the state in which reciprocal registration is sought, and that the date of such diploma was prior to the legal requirements of the examination test in such state.

Reciprocal Fees.—The Kansas reciprocal fee is \$25 with the states of Alabama, Colorado, District of Columbia, Georgia, Kentucky, Missouri, Nebraska, New Mexico, North Carolina, Oklahoma, South Carolina, Texas, Virginia, West Virginia, Wisconsin, Wyoming, Mississippi, and South Dakota; \$50 with the states of California, Delaware, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Minnesota, New Hampshire, New Jersey, North Dakota, Ohio, Pennsylvania, and Vermont; \$75 with the state of Utah; \$100 with all foreign countries.

All correspondence should be addressed to the secretary, Lebanon, Kan., and postage stamps should be inclosed for answer.

H. A. DYKES, M. D.,

Lebanon, Kan.

Secretary.

MISCELLANEOUS.

The American Hospital Association.

Next meeting San Francisco, Cal., June 22, 23, 24 and 25, 1915, Hotel Inside Inn.

The American Hospital Association is composed of hospital trustees, superintendents, managers, medical health officers, physicians, surgeons, pathologists and superintendents of nurses, contributors and officers of associations founded to promote the interests of organized medical charities. It aims to promote economy and efficiency in hospital management, to educate the public regarding hospital needs, to disseminate information regarding every phase of hospital work, to assist those who are carrying hospital burdens, and in every way to improve the care of the sick.

The American Hospital Association welcomes to its membership and councils, the representatives and supporters of the smallest hospitals, as well as those of larger institutions, including hospitals for insane, state hospitals, sanitoriums for tuberculosis and for other particular diseases, hospitals for contagious diseases and all privately-owned hospitals. It needs their support and assistance, and invites the active co-operation of every hospital in the United States and Canada.

Copies of this leaflet and application forms for membership may be had by addressing the Secretary, Dr. H. A. Boyce, Kingston, Canada.

—R—

Soothing Wine for Children Containing Morphine Condemned by U. S. Court.

Washington, D. C.—Five packages of Moreau's Wine of Anise—labelled, in part, "Moreau's Wine of Anise Children's Soothing Wine. Each ounce containing one-third grain acetate morphine, 8 p. c. alcohol"—was seized at Boston, Mass., on recommendation of the Secretary of Agriculture, March 16, 1914. The allegation was that the product was misbranded under the Food and Drugs Act and had been shipped from the state of New Hampshire into the state of Massachusetts.

The misbranding of the product was alleged on two major grounds: First, that the statements on the label regarding the curative and therapeutic effect of the drug and its ingredients were false and fraudulent; and, second, that the following words on the label, "Moreau's Wine of Anise being compounded with a pure, mild wine, is preferable to any soothing remedy compounded with syrup," would lead the purchaser to believe that the product was a wine, whereas it was not a wine.

The charge that false and fraudulent statements as to the curative effect of the product had been made arose from the fact that the drug and the packages and labels with it contained a statement that the drug was a mild, sweet medicated wine, an excellent remedy for children in cases of diarrhoea, dysentery, indigestion, and vomiting, which would lead the purchaser to believe that the drug was a remedy for said ailments, whereas the drug was not a remedy for said ailments.

On May 27, 1914, Louis J. Cote, claimant, Berlin, N. H., having filed a claim for the product and filed a satisfactory bond conditioned that the product should not be sold or disposed of contrary to the provisions of the Food and Drugs Act of June 30, 1906, as amended, or the laws of any state, territory, district or insular possession of the United States. The court entered judgment of condemnation and the goods were delivered to the said claimant upon his payment of the cost of the proceedings.

**FORTY-EIGHTH ANNUAL MEETING
OF THE**

Kansas Medical Society

MASONIC TEMPLE

Kansas City, - Kansas

Wednesday and Thursday May 5 and 6

THERAPEUTIC NOTES

Abilena Water.

Abilena is natural water, bottled exactly as when pumped from the wells, and, as you will note by the table of analyses, is the world's truest representative of the sodium sulphate group. It is specially indicated in auto-toxemia, either from acute or chronic retention; in acute infectious diseases; where elimination, without irritation, is of the utmost importance; in impaired biliary functions; in gastro-intestinal disturbances; either acute or chronic; and particularly in the catarrhal form; in rheumatism and gouty conditions, plethora and obesity, and, in fact, wherever elimination is indicated.

—R—

Leucocyte Extract.

The action of the Leucocyte Extract may be due to the enhancement of the bacteriolytic action of the animal's plasma by the introduction of complement, or to the action of digestive substances usually not liberated from the leucocytes; but it is most likely due chiefly to poison-neutralizing or destroying bodies, which act on the endotoxins, i. e., endoantitoxins or antiendotoxins, and thus relieve the leucocytes of the animal from fatal poisoning and protect the higher cells of the animal so that their functions are not deranged.

Biological as well as clinical tests have indicated that Leucocyte Extract is a most important therapeutic agent. It is our opinion, however, that this product is not altogether out of the experimental stage, and its therapeutic action should be carefully noted. Furthermore, it should not replace the specific serums or antitoxins whose value has been well demonstrated. For example, Leucocyte Extract should not replace diphtheria antitoxin, tetanus antitoxin, anti-meningitic serum, anti-streptococcic serum, or the various specific vaccines. It would, however, be a most valuable aid to the spe-

cific serums and vaccines, and could be used in conjunction with them. Thus, Leucocyte Extract, which has been proved to be of value in cases of epidemic meningitis, could be used by subcutaneous injection at the same time the anti-meningitic serum is employed.

Leucocyte Extract, used alone, is especially advocated when it is impossible for the physician to obtain a specific bacteriological diagnosis of the infection from which his patient is suffering. In such cases the extract may be more desirable than a stock vaccine, which may or may not be made from the specific organism from which the patient is suffering. Especially has it great advantage over the mixed vaccines, the purpose of which is to supply a mixture in the hope that one or the other of the ingredients may be of benefit.

—R—

Best Automobile Tires for Hard Use.

Some automobile tires give very fine service when given but ordinary use but when subjected to service over rough and rugged roads, worse than the ordinary, or over hard flinty streets they very often go to pieces. The best tires for most severe service are "Double Service Tires" which are the product of the "Double Service Tire and Rubber Co. of Akron, Ohio. These tires are made with a double thickness of tread which imparts on an average of 12 plies of fabric and one inch of service rubber. This is like putting an extra sole on a shoe. The results in service being the same in comparison. This tread is so thick that punctures are practically impossible, yet the tires contain the same air space, and the same pressure, as is used in any other makes so their resiliency and riding qualities are the same. Owing to the excellent method of manufacturing and selling adopted by the "Double Service Company" these tires sell for less than standard regular made goods, yet are guaranteed 7,000 miles service.

Agar in the Treatment of Chronic Constipation.

Agar, sometimes known as Agar-agar or Japanese gelatin, is derived from seaweed. It is supplied commercially in dry, transparent pieces that are reduced to coarse flakes for medicinal use. It freely absorbs water and retains it. It has the additional property of resisting the action of the intestinal bacteria, and of the digestive enzymes as well. Its chief use in medicine is in the treatment of chronic constipation. Experiments have shown that when Agar is eaten as or with food it passes practically unchanged into the intestine, where it permeates the feces, and, by keeping them uniformly moist, aids peristalsis. Hard and dry fecal masses are reduced to a softer consistency, normal evacuation resulting as a consequence. One or two heaping tablespoonfuls of Agar, according to individual requirements, may be taken once a day, preferably in the morning. It may be eaten with milk or cream, or mixed with any cereal breakfast food, with the addition of salt or sugar to make it palatable.

Agar is supplied by Parke, Davis & Co. in cartons of four ounces and one pound. It may be ordered through the retail drug trade.

—————R—————

Examinations Years Ago and Now.

Fifty years ago, examination was largely a matter of pulse finding; now it is possible to weigh and measure the organic functions of the body with as much accuracy as is possible in the testing of an intricate mechanism. This becomes possible through a series of tests in many of which elaborate equipment is required. Perhaps no other institution has a more complete organization for diagnosis than the Battle Creek Sanitarium.

The physical inventory possible there is a very thorough and accurate stock taking of the vital functions. Many bus-

iness and professional men visit the Sanitarium each year in order to take full advantage of the diagnostic facilities.

An interesting booklet, "The Measure of a Man," is offered free by the Sanitarium to those who care to know more regarding the system of examination.

—————R—————

For Sale—In good county seat town, Eastern Kansas, an old-established practice. Buy my residence property and good will goes with it. Terms to suit purchaser. Residence and office best located in town. Will remain six months to introduce buyer. Write for reasons of sale and terms. Lock Box 326, Garnett, Kans.

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WANTED—Location or association with established physician by 1913 graduate, married, 30 years old. Address "B" Journal Kansas Medical Society, Topeka, Kan.

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FOR SALE—A 16 in. S. W. Radiographic Special X-Ray Coil complete. Dr. O. P. Brittain, Salina, Kansas.

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FOR SALE—Static X-Ray machine made by National X-Ray Co., Topeka, Kansas. This machine is new, never having been used. A bargain. Ed. C. Jerman, R. F. No. 1, Topeka, Kansas.

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FOR SALE—A Victor Finsen Light Apparatus. Will sell cheap. Address Journal Kansas Medical Society, Topeka, Kansas.

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FOR SALE—A Jerman Static Machine, in good condition, and some new office furniture. Address Mrs. J. B. Armstead, 1006 Morris avenue, Topeka, Kan.

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ORIGINAL ARTICLES.

President's Address.

W. F. SAWHILL, M. D., Concordia, Kan.

Read before Kansas Medical Society at Kansas City, May, 1915.

Mr. Chairman and Members of the Kansas Medical Society:

I am not unmindful of the honor conferred on me by you in electing me to the position of President of your Society. It is an honor worthy of the ambition of any member, and the more appreciated when it comes unsought. My immediate predecessor departed from the usual custom of delivering a scientific address, and gave us something practical. The last two presidents of the American Medical Association did likewise. I think this the proper thing for the presiding officer to do; to give a resume of the year and plans for the future. I thought this a new departure, but recently I read the first address delivered by a President of the Kansas Medical Society, Dr. C. A. Logan, April 3, 1867, and found it along the same lines, especially mentioning hygiene and preventive medicine. "Truly there is nothing new under the sun." These are practical times, our schools are criticised for being old-fashioned, and not practical, political parties are non-progressive, and even in religion, we are accused of being behind the times.

I notice, however, that where the so-called practical things have been tried out, the people seem willing in many cases to go back to the old. The leaders of the

Medical profession, since its earliest history, have been heroes, more or less. They have been students, and all that has been developed has come through hard work. Discoveries have not been made by accident. Long, patient work has been the means of bringing out the results, and medicine has become a science in the highest sense of the term. To describe the growth of the medical profession from its beginning would be useless before this audience.

I want to speak briefly of some things that have been done in our own State Society. The Kansas Medical Society was organized and incorporated February 10th, 1859. The charter being granted by the legislative assembly of the territory. At the first meeting in Lawrence, February 10th, 1859, Dr. Alonzo Fuller called the meeting to order and Dr. S. C. Harrington was secretary pro tem. The following officers were elected at that meeting: President, Dr. S. B. Prentiss; Vice-Presidents, Drs. A. Hunting, J. P. Root, J. P. Robinson, A. J. Ritchie, C. F. Kobb and M. F. Holliday; Corresponding Secretary, Dr. Albert Newman; Recording Secretary, Dr. J. B. Woodward; Treasurer, Dr. A. Fuller; Librarian, Dr. A. Hartman. This meeting adjourned to meet at the call of the President.

The next meeting was held at the Eldridge House in Lawrence on Thursday evening, February 23rd, 1860, when Dr. J. P. Root was elected President.

The next meeting was at the Eldridge House, Lawrence. The record of the proceedings is very short. It reads: Jour-

nal of last meeting read and approved. On motion of Dr. Newman, the Society voted to meet on the last Wednesday in January, at such a place as may be designated by the President. On motion adjourned. J. P. Root, M. D., President, J. B. Woodward, M. D., Secretary. Lawrence, February 27, 1861."

No more meetings were held until after the war. It wasn't a very healthful place at Lawrence the next January.

The next record we find, is the following: "Pursuant to a call by the President, the Kansas Medical Society met at Topeka on the 31st day of January, 1866. Not being a quorum present, adjourned to meet at Lawrence on the first Tuesday in April, 1866 at ten o'clock A. M. J. P. Root, M. D., President, M. Bailey, M. D., Secretary pro tem."

At the meeting April 3rd, 1866, Dr. C. A. Logan was elected President, and Dr. D. W. Stormont, recording and corresponding secretary. Since that time a meeting has been held every year, this being the forty-ninth annual meeting. It is surprising when reading the papers read in those earlier days to find so many things that are still approved.

We make a great mistake if we think those men didn't know much about the practice of medicine. Many of them were the men who helped make Kansas what she stands for today, even after half a century of time. How many useless new preparations are used daily by a credulous profession that are not so rational as those used by the pioneers of this State. I want to make some quotations from that first address by Dr. Logan:

"Medicine in common with all sciences depending for appreciation upon a high intellectual development has been elevated from the condition of a mere pretension resting on a simple collection of dogmatic aphorisms, to the brilliant proposition of a far reaching science."

"The most that is possible for him (the physician) to accomplish will be measured by the power to extend the span of years until it shall reach the natural period,

when the inevitable lapse of time shall proclaim the harvest of life to have arrived."

"It is from this acknowledged futility of our science in uniformly preventing death, that the true principles of rational medicine have been subjected to so much opposition and that mercenary men have been enabled to succeed in their commercial designs by advocating false principles and duping the people into an apostasy from the true logic of medication."

"This branch of medicine which has been denominated hygiene or health has received its greatest impetus within the last fifty years, and in its general object is quite as important as the healing art proper. In settling this problem and fixing the deducible conclusions therefrom the whole subject of etiology or the causation of disease is opened in all its vastness and becomes the major factor in the solution of its intricate questions."

"It has long been a perplexing question with the poorest physician how best and most speedily to forever silence the horde of unprincipled men who in all ages and in all times have speculated on the suffering of afflicted humanity."

"True it is that false professors like false prophets require but a definite time to exhibit their unworthiness and work out their own ruin, but the principles of quackery is a very phoenix, no sooner dying in one form than it is ready to rise again and take wing over more extensive plains and feast upon the fruitfulness of more productive fields."

"As a striking example of the fact here presented, may be adduced the fatal disease, popularly known as consumption. All that science has succeeded in effecting against this dread foe, pertains to the early stages of the malady, and yet there are to be found hundreds of remedies guaranteeing a cure for the disease in any of its stages."

"Perhaps as atrocious a part of their nefarious traffic as any other relates to the parties who assist in promoting it. It is quite a common practice among

newspapers containing patent medicine advertisements to assist in the bad work by puffing editorials giving, if not an expressed, an implied endorsement."

"It would appear that the best means for guarding the people from medical imposition would be to educate them in the principles of life, and the requisite for healthy existence. But perhaps the greatest good of all would result from the inculcation of laws necessary to be observed to maintain a sound state of mind and body."

"It has given me much pleasure to observe that the Kansas State University, with the most enlarged perception, has created a chair devoted to sanitary science. This is certainly a most laudable step, and if followed by nothing further than the incorporation in the college curriculum of the principles of public hygiene, will doubtless be productive of the best results."

I have quoted somewhat extensively from this address, because the conditions of things today have changed so little that after half a century of time, it reads like a 1915 paper. Medicine and surgery have made wonderful progress in the last fifty years. Investigation has been extensive; men have sacrificed their lives to demonstrate the truths of their propositions; have died that men might live greater heroes than any who have fallen on the battlefield of the present great war, yet how many of us are living up to the lesson. The practice of medicine, after all is said, is knowledge combined with common sense, and honestly applied in a practical manner. We are not in a class by ourselves entirely, we may be somewhat further advanced. We are even the teachers. It has been demonstrated beyond a doubt that the germ theory of disease is correct, yet a quack in Kansas City could make fifty thousand dollars a year by giving his dupes small pieces of tissue paper, which he had rubbed with his hands, to pin on their underclothing to cure their ailments; this, too, in our modern days of boasted enlightenment. The newspaper

has taken the place of the orator and teacher in many ways, as an educator, and the fact that a man can receive a princely income by advertising pure quackery through its columns, proclaims its power. We are glad to know there are some newspapers in Kansas City, Missouri, and throughout Kansas, big enough to be above this kind of education. We are also glad to know that some of the better class of magazines and periodicals have joined our ranks in educating the public against fraud. How are we to combat this pernicious advertising, or is it worth while?

During the last decade the American Medical Association, through its journal, began a campaign of education exposing quack and many proprietary medicines, and with what result? The use of these remedies has fallen off greatly according to reliable druggists. I have been a close reader of the Journal of the American Medical Association and have learned to depend on it. It is strictly orthodox. It frowns on anything that savours of fraud. Its articles are high grade only. I wish every physician in the State would read the Journal every week, then there wouldn't be so much prescribing of proprietary remedies. It is a fact that nearly all the prescriptions of not a few, but many physicians call for proprietary medicines. Isn't it astounding that so many physicians make slot machines of themselves. It is our province as a State Society to elevate the profession in every way possible. The Kansas Medical Society has always stood for efficiency and has advocated raising the standard at every opportunity. It becomes our duty to inform the public of many things. The fakir has built up his practice by advertising, while the reputable physician has always looked upon such methods as unethical and dishonest. We should, by proper methods, strive to counteract the evil spread abroad by the charlatan. I am not a pessimist.

I think people after all mean to do right, and when properly informed usually do so. During the past year our society has en-

deavored to secure legislation that would raise the educational standard somewhat and place Kansas in line with other states. We wanted to have a single board, but some of the committee appointed by Governor Hodges, at our request, to draft a bill were wiser than we. They had had experience as members of the Kansas Legislature, and knew that a bill requiring anything approaching a high standard of education or fitness could never get through. So they got up a bill of preliminary educational qualifications that every one who practiced the healing art should comply with. They thought no member could object to this requirement, but it stood no chance. If we ever start an educational campaign, we surely ought to begin with the Legislature. While there are many good men of real ability there, they are in the minority. I think the teachers of the State would join us.

Right here, I want to pay tribute to our Honorable Secretary, who, by his ability and standing in the Senate, was able, single handed, to have our bill passed by the Senate, and yet there were men in that body who had to have amendments added, licensing some so-called healers to take the care of human life into their keeping without any qualifications whatever before they would vote for it. The plunderers must be given a license regardless of the welfare of the plundered. This is an application of the American principle of protection that horse thieves might as consistently ask.

True the Legislature passed an anti-fee splitting bill which our members support as it is part of our "Code of ethics," but they never would have passed it had they thought we wanted it.

After many years of study of the condition of the medical profession in Kansas, I am convinced we have as strong men as can be found anywhere. We have established a high grade standard for ourselves in spite of opposition. There is no other profession or business that requires so much time and money in preparation as the medical profession. The aver-

age physician attends faithfully to his professional work, but, I think, is neglecting his relations to the state and people. As a Society, we must fall in line with the American Medical Association and other State Societies, and not neglect our economical relations. A good beginning has been made by our capable and energetic secretary of the State Board of Health. He has accomplished great things in educating the public, and in spite of great opposition, but with most commendable grit, he never lets up. I am sure he has our support. The mass of the people want the rules of the State Board of Health enforced. It is only those with whose shady and pernicious business it interferes, who are opposing. The Committee on Public Health and Education has made an excellent start, and it is to be hoped that it can be arranged so that public meetings can be held throughout every county with competent men to address them on health subjects.

Dr. Jarrett, in his address last year, recommended an organized fight against medical frauds and quackery of every kind. That is good advice. The people are not the willing, but they are the ignorant dupes of the whole fraudulent system. There is nothing in the world concerning which the average man is so ill informed as disease and its remedies. Medicine is to him the mystery of mysteries, and when he learns that vaccines may ward away typhoid fever, he can easily be persuaded by some white cravatted fraud who charges outrageous bills that he has the elixir of life that charms away disease by a delicious sleeping potion, an adjustment of the spine, or a phrase of cabalistic incantation.

And this situation is due largely to ourselves. We have permitted this pernicious system to go on unchallenged until it has attained a measure of respectability. But Dr. Jarrett's suggestion is timely. The whole system of quackery has been built up by advertising and by the same method it can be rooted out.

If the American Medical Association

would have competent men prepare literature exposing the frauds and freaks and hollow shams in vogue in the practice of medicine, the county societies armed with this material would soon rid their communities of the grossest of the evils. Another power we should invoke, one that recently demonstrated its effectiveness against a giant offender in our state, is the postoffice department. It allows short shrift to any mail fraud.

I was uncertain as to the outcome of our defense plan, but since personally seeing it work, I am well pleased with it. I believe in a few years there will not be many cases brought against reputable physicians and that means members of the State Society. The cases that have come up during 1914 have practically all been thrown out of court. Very few cases have any merit in them, and by a united stand of the State and County Societies, we can successfully combat them. This feature is alone worth much more than the annual dues to every member.

At the meeting of the Council in January, it adopted a plan to secure new members. The American Medical Association purposes sending out an expert man in their employ, whom they pay, to canvass every county for members. The State Society is to allow him one dollar of the three dollars fee as our part of his pay. This plan ought to increase our membership greatly, and in many counties, get every physician as a member.

The Journal published by our Society is steadily improving in quality and quantity and as a means of keeping our members informed of what is going on in medical circles, fills a place that could not be occupied by any other means. The editorial in the April number on "The Governor Eliminated It" is well worth reading twice by every progressive doctor in the state. It is to be hoped that every member will send in to the Journal every item of news concerning physicians and medical societies, etc. We are not doing our duty in this regard. Let us fill the Journal with so much good stuff that every doctor in the state

will anxiously await each issue.

The Medical Department of our State University should get our support and does, but if our executive and legislative departments of the state continue doing their best to kill the school it cannot last long. It is not to be expected that students will attend any school of this character unless it is kept up to A class and has the best of clinical advantages, and fewer students increase the per capita cost which seems to be the main idea in the running of our educational institutions by our politicians. The Topeka Capital of April 19th, reprints an article from the Phillipsburg, Kansas, News-Dispatch, wherein it calls the Rosedale Medical School "A malignant growth." Such an attitude towards this department of our State University will soon cause our students to go outside of our state to get advanced educational facilities. Iowa is years in advance of Kansas in respect to the attitude of the executive department towards its medical school.

Though we failed to get any legislation that a progressive state ought to have, and though the majority of the members of the Legislature have demonstrated to us that they think more of the hog than they do of human life, yet this is not the time to lie down. The Kansas Medical Society has never done any work from mercenary motives. Its great aim has been to increase our knowledge of scientific subjects, advocate and work for laws to benefit the people of the state. Every physician knows that the enactment and enforcement of sanitary laws will reduce his income materially, yet he never hesitates, but pushes on harder than ever. This society has not opposed any system of practice that has any scientific value. All it asks is that the practitioner be qualified. We should begin at once to prepare for the next meeting of our Legislature. Good laws will come in time, but they will not come until we get our people properly educated.

In closing, I want to appeal to the physicians of Kansas to not lower the ideals,

but respect the ethics laid down by some of our masters. There is an inclination especially among the younger practitioners to make it a business rather than a profession. This is a wrong and debasing conception of the work. The successful physician and surgeon must have money, and is entitled to it, but the man who goes into the medical profession in the right spirit soon sees the higher side of life. He sympathizes with his patients and they learn to trust him. No one gets nearer the hearts of the people than the physician, and he should never betray that trust. No one has a greater opportunity for doing real good in this world. Are we diligent in using this opportunity?

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Vaccine Therapy.

H. MILTON CONNER, M. D., Topeka, Kan.

Read before Shawnee County Medical Society, Feb. '95.

Since the discovery in 1906, by Sir A. E. Wright of London, of the immune body which he calls opsonin, the practice of vaccine therapy has steadily increased until this form of treatment is now recommended by some enthusiasts in the treatment of almost every disease in the catalogue.

Before this discovery, a great deal had been done in prophylactic immunization, notably in smallpox and Asiatic cholera, but practically nothing had been done in the use of bacterial vaccines from the therapeutic standpoint.

Wright states that we have in bacterial vaccines one of the most valuable assets in medicine. His statement has been confirmed by the majority of our most progressive and well-informed physicians. No other form of therapy is so little understood by the rank and file of the profession, nor is a thorough understanding of the principles involved more essential in any branch of therapy than in the use of bacterial vaccines.

All competent observers agree that the use of bacterial vaccines is without harm, if they are properly administered, but also agree that they are capable of do-

ing considerable damage if used without caution or intelligence.

Before taking up the discussion of the use of vaccines let us be sure to understand thoroughly the principles of immunity, as upon a full understanding of these principles will depend our success in the administration of vaccines.

Immunity is defined as resistance to disease or non-susceptibility to disease. Immunity is called "active" if it is produced in the body of the individual who is protected, while it is called "passive" if it is produced in the body of another animal or individual and forced upon the one who obtains the protection. Immunity is called "natural" if the individual is born with that immunity, while it is called "acquired immunity" if he obtains it after birth. Acquired immunity may be obtained either by having the disease in question or by the use of attenuated or killed micro-organisms. Acquired immunity may be either active or passive. Passive immunity is conferred by the use of substances called serums, while the use of vaccines confer active immunity.

Bacterial vaccines produce active immunity by means of the substances grouped under the name anti-bodies. The injection into the blood current or into the muscles or subcutaneous tissues of any form of protein will result, in a healthy animal, in the formation of substances which react against that particular protein and against no other. The bodies of all forms of micro-organisms are composed principally of proteins, and for that reason their injection into the circulation leads to the formation of specific anti-bodies.

Anti-bodies are of several varieties, namely, anti-toxins, agglutinins, precipitins, lysins and opsonins. Anti-toxins are substances produced by the injection of the poisons or toxins of the micro-organism and act by neutralizing this toxin. Agglutinins are specific anti-bodies which cause the agglutination or clumping of the corresponding bacteria. Precipi-

tins are specific anti-bodies which cause precipitation of the corresponding protein or bacteria. Lysins are anti-bodies which cause the solution or destruction of the corresponding organism. Opsonins are substances which so prepare the bacteria that they are more easily disposed of by the phagocytes. The word comes from the Greek "opsono," meaning, "I prepare for eating." Opsonins are highly but not absolutely specific anti-bodies.

The opsonins for any particular organism may be increased by the injection of attenuated or killed cultures, as the case may be, of the corresponding bacteria. They may also be increased during an infection with the organism in question, if the resisting power of the individual is good, while if the resistance is decreased this may be shown by the decrease in opsonins. As a rule in the early period of an infection the opsonins are markedly decreased, while later in the course of the disease they usually attain a height above the normal limit. After the subsidence of the disease they gradually decrease again to normal. Opsonins do not act by destruction of the bacteria themselves, but by so preparing or sensitizing the bacteria that they are the more easily destroyed by the phagocytes.

The opsonic index is expressive of the relative number of bacteria ingested by each phagocyte as compared with the number ingested by the phagocytes of a normal individual. Wright showed by the estimations of the opsonic index that soon after the injection of a bacterial vaccine the opsonic index for the bacteria in question is temporarily decreased for from twelve to thirty-six hours, while later it gradually increases until it reaches a height above the normal and later gradually decreases until the normal level is again nearly approached.

The period of decreased resistance and consequent lowered opsonic index he termed the "negative phase," while the period of heightened opsonic index

and increased resistance he called the positive phase.

By the injection of a fresh dose of the vaccine during the negative phase a further decrease in the opsonic index and resistance occurs which he called "summation of negative phases." As it is possible to produce a summation of negative phases it is also possible to produce a summation of positive phases and in this way obtain what he termed the "high tide of immunity." This is done by the injection of the succeeding doses during the height of the positive phase or at the beginning of the down grade. In practicing vaccine therapy this high tide of immunity or summation of positive phases should be our constant aim.

Thus it is readily seen why it is absolutely necessary that we must have the proper dosage and the proper interval between doses in order, not only to obtain the best results, but to avoid actual harm. By the use of too large a dose or by having the interval between doses too short, we may produce a summation of negative phases and thus do incalculable harm instead of benefitting our patients. Conversely, by the use of too small doses, or too long an interval, we may fail to produce any good. Too small a dose produces only a very slight negative phase or none, but also only a slight or no positive phase. While if the interval between doses is too long the summation of positive phases is not obtained because the injection is not given until the subsidence of the positive phase obtained from the previous dose.

Most observers agree that the opsonins are formed principally or wholly at the site of injection, especially if this be the subcutaneous or muscular tissues. They are then thrown into the blood current and distributed to the site of the lesions of the disease providing the conditions for this distribution are favorable. Frequently these conditions are unfavorable and on this account vaccine therapy fails in a good many cases. These conditions will be discussed later on.

Coincidentally with the increase of opsonins other anti-bodies are also increased.

Vaccines are suspensions of killed bacteria in normal salt solution to which a preservative may or may not be added. Vaccines are of two varieties, autogenous vaccines or those made from the germs from the lesions of the patient for whom the vaccine is to be used, and stock or heterogenous vaccines which are made from organisms isolated from disease processes in other individuals.

Practically all of the expert unbiased opinion favors the use of the autogenous variety in any case where these can be obtained.

Thomas, in an article in the *Therapeutic Gazette* for January, 1913, gives as causes of failure in vaccine therapy: (1) utilization of the improper bacterium whether autogenous or heterogenous; (2) routine employment of stock instead of autogenous bacterins; (3) ignorance in administration, either as to size of doses or intervals of inoculation, and (4) disregard of commonly associated conditions.

Hart, in an article, entitled "Vaccines and Immunity in Relation to Surgery," published in the *Michigan State Medical Journal*, makes this statement: "Experience has proven that an autogenous vaccine or one made directly from a culture of the infectious material is far more efficient than a stock vaccine, as bacteria with few exceptions have so many strains that one cannot always be sure of getting the right one in a stock vaccine. Further, the giving of many with the hope that some one will prove the right one is too much like going back to the old-fashioned shotgun prescription."

Blatteis, pathologist to the Jewish Hospital of Brooklyn, has this to say: "Autogenous vaccines or bacterins are the only vaccines to be employed in order to comply with the scientific theoretical conception and experimental evidence."

Stone, in the *Albany Medical Annals* for March, 1914, says: "I personally

have but little faith in stock vaccines and the so-called gunshot vaccines which are made up of different numbers of different germs, the makers hoping that perhaps one of the germs may hit a certain condition correctly and so produce beneficial results. I believe that the vaccine treatment is one of the most scientific methods of therapeutics and that it is absolutely necessary to know the germ or germs which are producing the disease and then to administer vaccine in correct doses prepared by culturing the causative organisms."

Dwyer, in the *Manhattan Eye, Ear and Throat Hospital* report, makes this statement: "To my mind there are no two sides to this question, as in all cases, it should be an autogenous vaccine, although I have used the stock one in some few cases."

I might quote in like manner from a large number of papers, but this suffices to show the opinion of authorities on the relative merits of autogenous and stock bacterins.

The reasons in brief for the use of autogenous in preference to stock vaccines are these: That anti-bodies produced for a particular strain of a particular bacterium are specific for that particular strain and are of little or no use in producing immunity to any other species or strain of bacteria. Besides, when the body cells are called upon to produce anti-bodies for an organism which is not infecting that body an exhaustion of the anti-body forming power is likely to take place so that instead of good accruing from the use of this bacterin actual harm may result from this exhaustion.

However, there are certain varieties of bacteria in which the use of stock vaccines is very satisfactory in a considerable number of cases, notably infections due to the staphylococcus, although even here autogenous bacterins, when obtainable, are much to be preferred.

One thing to bear in mind in vaccine therapy, is that vaccines are not a panacea, but are to be used in properly se-

lected cases, especially those of the chronic or sub-acute type. Competent observers disagree markedly in their views as to the use of vaccines in acute diseases.

Preparation: The organisms concerned in an infection are isolated and grown upon suitable culture media, usually plain agar or blood agar slants. After growth in the incubator for from twelve to thirty-six hours—usually twenty-four—the organisms are washed off of the culture medium with normal salt solution, counted, killed and the proper dilution made according to the usual doses of the various organisms.

The killing of the organisms is performed usually by subjecting them to a continuous temperature of from fifty-five to fifty-eight degrees centigrade for from one-half to one hour, in some cases as high as 62 degrees, the temperature and time of heating depending upon the variety of bacteria present. The lowest temperature that will kill the organisms should be used, as by overheating the antigenetic or anti-body forming properties are diminished. Recently a method of sterilizing by the use of 0.5 per cent phenol, or 0.25 per cent trikresol, has been used by some workers. In either case, the sterility of the vaccine should be proven by inoculating a small portion of the emulsion on an agar slant and testing in the incubator for twenty-four hours. The vaccine should be kept in an ice box or at least in a very cool place.

Administration: The vaccine is best administered by means of an all glass 1 c. c. Luer syringe sterilized by boiling for at least five minutes. The site of administration is of considerable importance. Usually the arm is selected as the site of administration on account of being the most accessible, but other areas are preferable to this, especially the sub-clavicular and the upper part of the buttock. In the sub-clavicular region the amount of subcutaneous tissue is usually considerable and the consequent formation of anti-bodies is more readily ob-

tained. It is also less painful in this region, ordinarily, on account of less muscular action.

Dosage: The first dose is the only one that should be arbitrarily determined. All others should depend upon the reaction obtained at the previous dose or doses. The first dose should always be so small that no harm can be done. If no reaction is obtained in two days, a second dose double the size of the first may be safely given and so on, increasing until a reaction is obtained. However, a severe reaction should always be avoided. In chronic cases the dose is almost invariably much larger than in sub-acute or acute conditions. A safe rule is, to quote one authority, "The sicker the patient the smaller the dose."

Interval: The interval between doses usually recommended is from three to seven days. My own experience being that with a proper dose an average interval of five days produces the best results. However, this must be decided entirely by the reaction produced by the preceding injection. A safe rule is, never to inject a dose of vaccine while the patient is still having the reactive effect of the previous dose, such as swelling and soreness at the site of the previous injection, malaise, fever accelerated pulse or exacerbation of the local infective process. An excessive reaction always means either too large a dose or too short an interval and the succeeding dose must be based entirely on this reaction. The patient should be seen at frequent intervals, and especially the day after the injection.

A very important point in vaccine therapy is constantly to keep in mind that the use of vaccines should not be depended upon to the exclusion of other tried therapeutic measures. For instance, in the treatment of acne, the same local measures should be used in conjunction with the vaccine treatment as without it, such, for instance, as expression of the comedones, evacuation of

the pustules, etc. A case of appendicitis should not be denied operation in the hope that vaccine will cure the condition. In fact, the indicated surgical procedures are usually necessary to obtain the proper results from the use of bacterial vaccines. In the case of a boil, the pus should be evacuated, as by this means not only is the absorption of toxins, and possibly bacteria, into the blood, prevented, but the entrance of the opsonins to the infected focus is made possible. The pus in abscesses in any part of the body should be evacuated for a like reason. The walls of an old abscess should be scraped so that the entrance of the opsonin containing serum of the blood is thereby facilitate. In cases where bone lesions are being treated, dead bone should be removed and all indicated surgical procedures carried out.

In vaccine therapy we must do everything possible to be certain that our anti-bodies which are formed at the site of inoculation obtain entrance to the site of infection. This can only be done by relieving the pressure of pent-up pus, removal of coagulated fibrin and impervious fibrous walls of abscesses. Wright has devised a solution for irrigation of infective processes which he used in connection with vaccine treatment in those cases where the entrance of the anti-bodies to the infected focus is hindered. This consists of a solution of sodium citrate 1 per cent and sodium chloride 4 or 5 per cent in distilled water. The sodium citrate acts by preventing the coagulation of the serum exuding from the surface and the strong solution of sodium chloride produces osmosis of serum toward the cavity or surface irrigated with the solution, on account of the hypertonicity of the salt solution as compared with the blood. Thus the serum containing the anti-bodies is brought more easily in contact with the infecting bacteria. This is not only a rational procedure, but, in the experience of a number of surgeons, has worked to very great advantage.

A brief statement of some of the most important diseases in which vaccine therapy has been of decided benefit may not be out of place.

One of the diseases in which most brilliant results are obtained is in the treatment of pustular acne. This disease, so refractory to ordinary measures, frequently responds very brilliantly to vaccine therapy. Boils, especially chronic furunculosis, also gives brilliant results. Sycosis shows cures in 50 per cent of cases and improvement in the rest. Other skin diseases in which bacterins are more or less used consist of ulcers, impetigo, sinuses and fistulas.

In diseases of the genito-urinary tract, acute gonorrheal urethritis gives good results, according to some observers, and poor ones in the hands of others. Chronic urethritis is almost always benefitted or cured. In gonorrheal rheumatism the vaccine treatment produces some of the most brilliant results in vaccine therapy.

Colon bacillus infections of the entire genito-urinary tract, especially of the kidney and bladder should be treated with autogenous vaccines as a matter of routine.

Infections of the ear and of the accessory nasal sinuses are certainly indications for the use of bacterines, especially of the autogenous variety, if they can be obtained. My own experience with vaccines which I have made for cases of ear disease has been extremely satisfactory; most cases resulting in complete cure and all, so far as I know, in improvement. Doctor E. W. Nagle of Boston reports sixty-five cases of ear infections with but one failure. In these cases autogenous vaccines were used.

In infections in the eye and its appendages, vaccine therapy is also considerably used. Dwyer reports a series of twenty-seven cases of recurrent hordeola with twenty-four complete recoveries. In acute infections of the conjunctiva, vaccines are little used, but in the chronic infections a number of very favorable reports are given, especially in

cases of chronic conjunctivitis and dacryocystitis.

In diseases of the respiratory tract, chronic bronchitis offers a fertile field for vaccine therapy. Purulent bronchiectasis and pulmonary abscess offer less encouragement.

In the treatment of pyorrhea alveolaris, there is no consensus of opinion in regard to the use of vaccines, although very many observers are very enthusiastic in its use.

Tonsillitis, especially of the chronic peri-tonsillar variety, offers a fairly good field for vaccine therapy.

In the treatment of septicemia there is marked difference of opinion among our very best men. Allen of London, who is probably more frequently quoted than any other authority on vaccine therapy, makes this statement: "Personally, I have not yet lost a single case of septicemia, although called in in several instances as an absolutely final hope, and regard this class of case as the most easily managed in the whole domain of bacterial diseases and as the one above all in which hope should never be abandoned so long as the patient is alive. My rule is to work day and night till the autogenous vaccine has been prepared." In this case he uses an autogenous vaccine prepared by a short method. Other authorities are equally as strong in their condemnation of bacterial therapy in septicemia.

In endocarditis the results are usually disappointing, either with the stock or autogenous variety.

Recently in the treatment of chronic arthritis, especially arthritis deformans, the use of an autogenous vaccine made from the organisms found in the tonsils or some other focus of infection in the lymph glands or in connection with the teeth has been reported, with some very promising results. In nearly all of these cases a streptococcus is the main organism isolated.

During the last year Billings and Rose now have used vaccines made from a

diphtheroid bacillus isolated from the lymph glands in cases of Hodgkin's disease in the treatment of this affection, with some remarkable results. In most cases this vaccine was of the autogenous variety.

The use of vaccines in the treatment of typhoid, pneumonia, whooping cough, scarlet fever and other acute infectious processes is also subject to considerable discussion pro and con. Most observers agreeing, however, that they are of little or no value, although some rather brilliant results are reported.

Conclusions.

1. Vaccines are one of the most potent agents for good, if properly administered, but capable of doing harm if not carefully used.
2. The vaccines should be of the autogenous variety, whenever these are obtainable.
3. The most careful attention should be given to dosage, interval between doses, and intensity of local and general reaction.
4. Due attention should be paid to conditions associated with the disease under treatment.
5. Indicated surgical and medical treatment should be carried out.
6. Vaccines should not be the last resort, but the first thought in conditions in which they are indicated.
7. The use of vaccines may be of decided benefit in almost all forms of chronic infections, but in acute infections the cases should be selected.

— R —

A Remarkable Case of Tubal Pregnancy.

LLOYD A. CLARY, M. D., Hutchinson, Kan.

I wish to report the following case which has some very unusual and interesting features. The patient, Mrs. B., is 24 years old, and the picture of health. She is an intelligent patient, the wife of a traveling man and was married in August, 1912.

Family history good. Previous history excellent. She had never been sick. Menstruation was always absolutely normal,

occurring every twenty-eight days with no pain whatever. No history at all of any previous pelvic trouble.

History of present trouble: Last menstruation October 18, 1914. On December 2nd, 1914, she started to flow and flowed almost constantly from that time until she came to my office to consult me on December 21st, 1914. She had no pain except some slight cramp-like pains on the 19th and 20th of December, to which she paid little attention. Some small clots had passed. There had been no morning sickness or anything other than the missed period to cause the patient to think she might be pregnant.

Examination showed the cervix softened, uterus enlarged to about what we would expect to find at two month's pregnancy, lower portion soft and compressible but in normal position. There was no mass on either side or tenderness over either tube or ovary. The breasts were neither enlarged nor tender.

A diagnosis of pregnancy with threatened abortion was made and the patient put to bed. I saw her three days later at her home at which time she felt very well and was anxious to get up. The flow had continued while she was in bed but was not profuse. It was not a menstrual type of flow, being more a bright red blood. During the week from December 24th to 31st, I kept in touch with my patient by phone, but did not see her. I had enforced a rigid regimen and she was not allowed to rise from the bed for any purpose.

On January 7th, 1915, I was called to the house in the morning by the husband. He had been out of town a few days and two days before this the wife had suffered an acute attack of tonsillitis which had caused her so much distress that she had phoned on the 6th for him to return. She had been up and around the house for a week. I found a typical case of follicular tonsillitis with a rather sore throat and the tonsils considerably enlarged. On being questioned about the flow she stated that for the past few days it had been

more profuse, but there had been no pain. Vaginal examination showed nothing more than in the previous examination. I returned to treat the throat in the afternoon and again the following morning. At this visit, January 8th, there was very slight tenderness over the region of the fundus, on external palpation, but no soreness and no pain. There was neither pain, soreness nor tenderness over either side.

On January 9th, I visited my patient about 10:45 a. m., and found the throat much better. The husband stated that the vaginal flow had been much more profuse during the night and the cloths showed several small clots that had passed. There still had been no pain and only very slight soreness, but over the region of the fundus and slightly to the right there was a little tenderness. It was just at the moment that I was sitting by the bed that something happened. My patient suddenly turned faint, became nauseated, started to vomit a greenish fluid and broke out in a profuse, cold perspiration. She exclaimed, "Oh, I feel so queer" The pulse immediately shot up to 150 and the temperature, taken a few minutes later, went down to 94 F. She was perfectly conscious all the time and had absolutely no pain whatever. The only complaint she made was that there was a lot of gas "in her stomach," and she said she would feel all right if she could pass off this gas. She continued to complain of feeling "queer." I raised the foot of the bed, gave a hypodermatic injection of atropin sulphate gr. 1-100, and called for the ambulance.

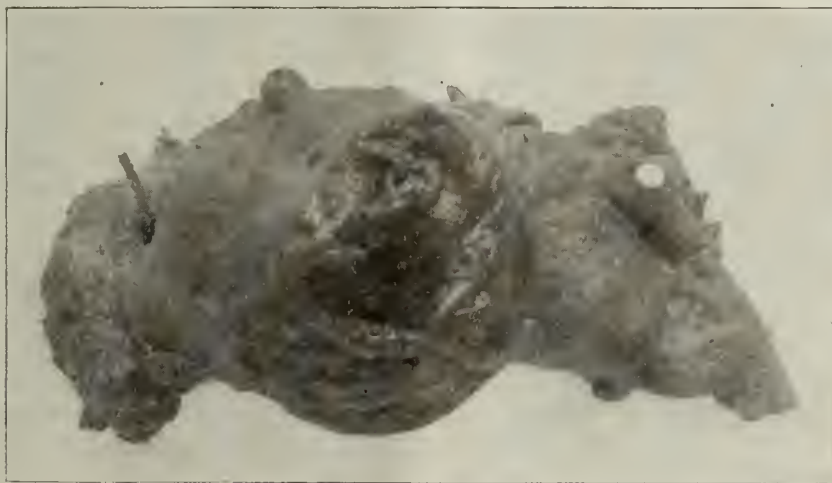
The hospital records show a temperature 94 2-5 F and a pulse of 120 when she was admitted a few minutes later. I made a diagnosis of ruptured tubal pregnancy—probably right—and advised immediate operation. The patient was suffering severely from shock at this time and an ampoule of pituitrin was given. She still felt no pain though there was an anxious expression present.

Doctor C. Klippel, who was called at

once in consultation, concurred in the opinion that the condition was a grave one and that the symptoms pointed to an internal hemorrhage from some cause, and likewise advised immediate opening of the abdominal cavity.

Incision was made in the median line, the right rectus retracted and the peritoneum opened. At this stage the diagnosis was quite apparent for a large amount of blood gushed forth and the abdomen was literally filled with blood. The right tube was found normal, but the left was ruptured. The specimen is shown magnified to just double the exact size in the illustration and the rupture is shown

Recovery was quite uneventful with one exception. In the haste used in giving the hypodermoclysis the needle must have penetrated the tissue of the right breast instead of going under the breast and an abscess formed in this breast. This abscess caused the patient considerable trouble, and, in fact, was the only thing that did give her any subjective symptoms of any consequence. After this abscess was lanced healing was very prompt, though quite a large amount of pus had formed. The stitches in the abdominal wound were removed on the seventh day. There was never the least pain or soreness in the abdomen except some slight gas pains and



Specimen of ruptured tubal pregnancy. Left tube, posterior view, magnified to double exact size. The swelling in the tube where pregnancy occurred and

the rupture are shown very plainly. A small cyst is seen on the upper surface.

very plainly. Hypodermoclysis of normal salt solution was started as soon as the peritoneum was reached, the injections being made beneath the breasts. The bleeding was hastily checked, the left tube removed, a large number of good sized clots removed from the abdominal cavity and the incision closed. The fetus was not found though the placenta was in situ.

Another ampoule of pituitrin was given while the patient was on the table as she suffered a sever shock during the operation. After the operation proctoclysis of normal salt solution was used for a few hours. The anesthetic used was ether by the drop method.

some distress from constipation which was chronic in this patient. Patient left the hospital January 24th, 1915.

There are a number of remarkable features in connection with this case, chief in my mind being the entire absence of pain, a symptom almost constant in cases of ruptured tubal pregnancy and the one that is generally most prominent. Then the rupture occurring while I was in the room sitting by the patient's bed, called there to treat a sore throat, was an experience sufficiently out of the ordinary to be of interest to any surgeon.

There was little, other than the missed period and the flow later, to base a diag-

nosis on as there had been no morning sickness or enlargement or tenderness of the breasts.

Owing to the slight degree of tenderness to the right of the uterus which was found on examination the day of the operation it was thought the right tube would be the one found affected, whereas it was the left. The feeling as if the bowels were full of gas which the patient complained of at the time of the accident was evidently due to the upward pressure from the copious hemorrhage.

The patient's condition at the present time is good and she is apparently no worse for her experience.

—————R—————

NOTES FROM THE MEDICAL SCHOOL.

S. A. MATTHEWS, Lawrence, Kan.

Parenteral Digestion—Its Relation to Infectious Diseases.

The expression "*parenteral digestion*" is used to designate the digestion of pabulum by the general tissues of the body (cells), as opposed to "*enteral digestion*" or digestion in the stomach and intestines by means of the ferments furnished by tissues (glands) of special function. Life in its most simple form must derive its maintenance directly from the pabulum with which it chances to come in contact. The pabulum, while it must contain all of the elements essential to the body of the living organism may not, and in fact seldom does, contain the elements in a form which an organism can transform into its own body.

To bring pabulum into an available state, a series of reactions take place between the pabulum and the living body, at first, we may imagine of a very subtle nature; but which, after a time, may assume a demonstrable intensity. First the mere contact of the cell with pabulum develops within the cell the property to secrete a ferment which in turn acts upon the pabulum causing its digestion, the digestion products of which are in turn taken up by the cell and made over into

its own body. We have reasons to consider that this property of the cell to secrete a digestive ferment is developed in response to its surface contact with pabulum and that each particular pabulum with which a cell may chance to come in contact may cause the development within that cell of a ferment capable to bring about its digestion. This is the same as saying that living organisms, by coming in contact with various pabuli, may extend their range of power to obtain maintenance from their environment. This would give life a developing power to fight its way and make for itself a place in nature.

The development of these reactions might well be termed *the reactions of maintenance*, and *constitute one of the first laws of life*. Recent studies upon parenteral digestion of proteins have brought out the above conception quite clearly. In the highly complex multicellular organisms the digestion of pabulum is delegated largely to tissues (glands) of special function which secrete the ferments necessary for its digestion. In consequence of this the general body cells have lost, in large part, their powers to digest pabulum, but which again can be developed when placed under the influence of an adequate stimulus.

It has been shown by Vaughn and Wheeler that all protein substances, regardless of their sources, when digested in a solution of 2 per cent sodium hydrate in absolute alcohol, are split into at least two parts, one of which is highly poisonous when injected into animals. Before this, it had been shown by numerous investigations, that if a protein substance be injected into an animal little or no poisonous symptoms follows, but if a second dose of the same protein be injected ten to fifteen days subsequent to the first dose, the second dose is highly poisonous. This reaction (anaphylaxis) is systematically identical to the poisonous reaction following the injection of the poisonous split-product of proteins as prepared by Vaughan.

During the process of proteolytic digestion, whether carried out by means of acids and heat or by the digestive enzymes secreted by the digestive glands, the proteins are first split into a poisonous and non-poisonous part, both of which are further digested and completely changed during complete enteral digestion. The poisonous part liberated during the early changes of digestion is physiologically identical to Vaughan's split product obtained by subjecting proteins to the action of sodium alcoholate.

These observations go far to prove that the cells of the body possess a very limited power to digest proteins i. e. parenteral digestion has been almost lost, but when proteins are offered to the cells parenterally and remain in contact with them for a certain length of time they develop the power to secrete a proteolytic enzyme with power to hasten the digestion of proteins to almost an explosive degree. This explains why the second dose of protein is poisonous. The first dose is but slightly poisonous because it is digested too slowly to liberate the poisonous part of the protein molecule in sufficient quantity to exert a poisonous action, while the second dose is digested very rapidly liberating the poisonous part in quantities sufficient to exert its poisonous action. These reactions constitute the mechanism of the phenomenon termed "anaphylaxis" or protein poisoning.

(Continued.)

MISCELLANEOUS.

Alcohol.

C. C. Lieb, New York (Journal A. M. A., March 13, 1915), has experimentally studied the reflex effects of alcohol on blood pressure, using cats as subjects, and also has studied and compared the clinical results reported, with observations made in the medical wards of the Roosevelt Hospital. From his experiments and observations, he says it is evident that small doses of undiluted whiskey cause a reflex effect on the circulation in a certain per-

centage of the patients, which will probably explain the so-called stimulation which has been ascribed to a direct action of the drug on the circulation. This reflex is most evident in cases with hyperactive superficial and deep reflexes, and least so in those which are apathetic with the bacterial toxemia. It is more marked in moderate drinkers than in those who use alcohol to excess, probably on account of the protective secretion of mucus present in alcoholic gastritis. Irritating concentrations of alcohol are needed for this reflex, and the degree of response varies more or less directly with the degree of irritation produced. From his investigations, it appears that alcohol does not stimulate the circulation, either by increasing the heart beat, or by raising the blood pressure, and he concludes that it is evident from his experiments that even though whiskey may raise for a few moments the systolic blood pressure, and thus act as an apparent circulatory stimulant, it cannot be regarded as such in the true sense, since its decrease of cardiac efficiency raises disproportionately the diastolic pressure, and lowers blood pressure.

Psoriasis.

E. D. Holland, Hot Springs, Ark., (Journal A. M. A., March 13, 1915), reports three cases of psoriasis, treated by vaccines with success. The first patient had developed tonsillitis and bronchitis, during which the psoriasis seemed to suggest to him that it might be in this case an infection. He therefore made an autogenous vaccine from a culture from the tonsils and ceased treating the stomach, which he had begun some five weeks before. In two weeks after the use of vaccines, the psoriasis had entirely cleared up. Eight months later the patient reported it had not reappeared. The other two cases were treated with a mixed vaccine of streptococcus, staphylococcus and *Micrococcus catarrhalis*, with similar results. He is now giving the remedy a more extensive test and hopes to report further successes.

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - - - Editor

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The Annual Meeting.

The forty-ninth annual meeting of the Kansas Medical Society, which occurred on the 5th and 6th of the present month, will stand as one of the time markers in its history. In attendance and in scientific interest, it was perhaps not above many other meetings that have been held, but that which most impressed the regular attendant was the unusual manifestation of fraternalism. There were no discords, but the greatest unanimity of purpose prevailed. Every proposition that seemed to have for its object the improvement of the society or the betterment of the profession met with the unanimous support of the delegates. The election contests were of the good natured sort, which leave no bitterness in the hearts of those who are defeated and no smirch upon the honor accorded to those who were elected. The delegates were most amiable in their consideration for all those who had endeavored to perform the various duties imposed upon them, whether or not the outcome was all that had been anticipated.

* * *

At the first meeting of the Council, which was held Tuesday evening, the most

important subject discussed was that of membership. It was realized by all that the membership of the society should be largely increased. Various methods were suggested for accomplishing this end. The Council had already authorized the secretary to arrange with the A. M. A. for the employment of one of its solicitors, and it is hoped that he will soon be in the field.

Some modification or readjustment of conditions under which members may be admitted seems very necessary, in order that those who reside in counties where it is impossible to maintain a county organization may not be excluded from the benefits of the society.

After discussing various plans the President appointed Drs. Huffman, Sawtell and McVey to act as a committee to devise some practical plan for increasing the membership and they were authorized to employ a solicitor.

* * *

Heretofore the reports of Councillors have consumed a great amount of time and have really not been of much instructive value. The House of Delegates, at this meeting, voted to dispense with hearing these reports, but required that each Councillor should submit a written report of his work and the condition of his district, which should be published in the Journal with the proceedings.

All of the Councillors, whose time expired with this meeting, were re-elected, with one exception. Dr. Walker, having received the highest honor the society could confer, was succeeded in the Council by Dr. Moses, also of Salina.

* * *

At the meeting of the House of Delegates, on Tuesday morning, the election of officers was the first order of business and there were elected:

Dr. O. D. Walker, Salina, President; Dr. J. R. Scott, Newton; Dr. C. W. Jones, Olathe; Dr. B. F. Chilcott, Osborne, vice-presidents; Dr. W. F. Sawhill, Concordia, and Dr. J. F. Jarrett, Fort Scott, Delegates to the A. M. A. Dr. L. H. Munn, Topeka,



PRESIDENT
O. D. WALKER, M. D.
SALINA, KAN.



Treasurer.

Dr. C. W. Reynolds, Holton; Dr. C. C. Goddard, Leavenworth; Dr. K. P. Mason, Cawker City; Dr. C. S. Kenney, Norton; Dr. H. N. Moses, Salina, Councillors. Dr. K. P. Mason was afterward elected by the Council to fill the place vacated by Dr. Walker on the Defense Board. At a meeting of the Defense Board, Dr. O. P. Davis of Topeka, was re-elected chairman of the Board.

* * *

Several amendments to the Constitution and By-laws were adopted and these will be published in the official report, but one of these is of so much vital importance to the society that attention should be called to it now. It provides that independent societies, whose requirements for the admission of members is in conformity with those of the state society, may be designated by the council and that a physician residing in a county which has no county organization, if he is a member of such an independent society, may be admitted to membership in the state society, paying his dues directly to the secretary of the state state society.

This does not in any way affiliate these societies with the state society, but simply gives official recognition to them as boards of censors, where no county society is available.

Let's Pull Together.

In another place in this issue appears a copy of a resolution adopted by the House of Delegates, relative to the attitude of the Administration toward the medical school.

The resolution, no doubt, expresses the sentiments of practically every physician in Kansas, but sentiment alone doesn't accomplish very much and the adoption of resolutions is the easiest method by which we may shirk the responsibility for the existence or continuance of the conditions we lament. Practically speaking these resolutions constitute an indifferent expression of the indifference of the profession toward the medical school. The

fact that such a resolution seemed appropriate is evidence of such indifference.

A very small per cent of the medical students of Kansas attend the school at Rosedale. Hardly half of those who attend the first two years at Lawrence go on to Rosedale for the finishing course. A majority of the young men of this state, who are studying medicine, are to some degree under the tutelage, or at least subject to the advice of members of the medical profession, and their influence has much to do with determining where the studies of these young men shall be pursued. Therefore we find in this small attendance at Rosedale, another evidence of the indifference of the profession toward the school.

The Governor might have round a better argument, for his veto of the appropriation, in the fact that the medical men of Kansas have not patronized the school to the extent which is justified by the great expenditure required for its development. Had the profession of Kansas given the school that support and patronage which such a state institution should receive, there would have been no basis for the argument advanced by the Governor.

There are some of us who are not in sympathy with some of the plans upon which the school is conducted, but we are not, for that reason, less devoted to the school itself or less concerned in its advancement. The writer has given some publicity to his views and has pointed out some things he believed to be detrimental to the best interests of the school, not because he was antagonistic to it, nor because he was indifferent to its success, but because it is the only institution in the state in which the interests of the medical men of Kansas should be centralized, and because the Journal of the Kansas Medical Society is the only organ in the state in which the affairs of the school can be and should be thoroughly discussed. It was believed that a free and full discussion of all matters pertaining to the school would do more toward awakening the interests of the profession in its af-

fairs than could be accomplished in any other way.

Perhaps such a discussion at this time is neither wise nor feasible; perhaps the conditions, with which fault has been found, are irremediable; it is nevertheless our school and should have our interest, our influence and our support. Instead of sending our sons and our student friends to Chicago, St. Louis, Philadelphia or New York, let us send them to Rose-dale, where the small classes tend to more thoroughness and greater efficiency and where more explicit detail in instruction is possible. It is not the name of the school that counts in the practice of today, but the accurate knowledge of medicine. Let the capacity of the school be taxed to its utmost and there will not only be no ground for refusing an adequate appropriation, but the necessity for such provision will be apparent.

The superfluous administrative authority, in connection with the school, has been criticized, but no word has been uttered in disparagement of the intelligent management of either branch of the school, of the capability of the teachers, or of the thoroughness of the instruction given there. The merit in these things is too well recognized to need comment. Some criticism has been offered of certain conditions at the hospital, conditions that have resulted from inadequate appropriations. These conditions are regrettable because they limit the magnitude of the work which might be accomplished rather than that they detract from its efficiency. But no criticism has been offered which shall stand between us and our best endeavors on behalf of the school.

Let us, for a time, ignore the ambitions of men and the uncertainty of politicians and pull together for the big things in medicine and a great school in Kansas.

Dr. Prather Married.

Sterling friends have received cards announcing the marriage of Dr. Benton T. Prather and Miss Anne U. Martens, Wednesday, March 24th. Ceremony was

performed in Woodville, Miss., the home of the bride, as also where the doctor's mother, Mrs. Prather and his sister, Mrs. Miller are living. The groom is a graduate of our high school in the class of 1898. He has been practicing medicine at Peabody, Kansas, and the happy couple will make that their home. A younger brother, Nathan Prather, is also married, and is a druggist at Pensacola, Florida. The family had lived many years in Sterling.

R

Dr. A. C. Davis, one of the old practitioners in Topeka, recently passed away, at the age of 79 years. Dr. Davis was a successful practitioner, a man of unusually fine intellect and thoroughly posted on medical topics. For some years he has not taken an active part in medical society affairs and was best known to the profession through his son, Dr. O. P. Davis.

R

The entertainment offered the society at Wichita and at Kansas City indicates a sensible appreciation of the fitness of things. The time is so fully occupied with the program and the business of the society that there is little opportunity for entertainment. A good hearty dinner at dinner time certainly meets every requirement in this direction. The Kansas City people gave us a splendid dinner, excellently served and with just enough diversion to make all the grouchy fellows turn the corners of their mouths up.

R

It is with great pleasure that we call your attention to the appearance, in this number, of the first of a series of articles on "Parenteral Digestion" by Prof. S. A. Matthews, of the University Medical Department.

R

Time consuming engagements of various kinds have prevented Dr. Davis from preparing his monthly contribution to the Journal. We are assured, however, that the Corral will appear again in the June number.

The society has held its annual meetings during the first week in May for a considerable period. The first week in May has almost invariably, during that period, been disagreeable. It has been cold or rainy or both. One wonders if any other week would become so habitually disagreeable if it were burdened with the meeting of our society.

—R—

The next annual meeting of the society will be held in Topeka. As this will be the fiftieth annual meeting it has been suggested that some suitable celebration of the event should be considered. It is hoped that the committee on arrangements and the program committee will bear this in mind.

—R—

The United States Commission of Internal Revenue has made a ruling in regard to the interpretation of the Harrison Narcotic Law that is of considerable importance to physicians. This ruling is as follows:

"Where a physician personally visits a patient and administers any of the drugs coming within the scope of the Harrison Act, he is not required to keep a record of such administration, but where he leaves a supply of any of these drugs or preparations to be taken by the patient in the physician's absence, he will be required to keep a record of such drug or preparation, the same as he would in his office. A physician must keep a record of all drugs or preparations dispensed or distributed in his office, whether administered personally or given to the patient to be called away with him."

—R—

The American Pootologic Society will meet in San Francisco, June 21 and 22, at the Civic Auditorium. Headquarters will be at St. Francis Hotel. Members of the profession are cordially invited. Alfred M. Zobel, M. D., of San Francisco, is secretary and treasurer of this society.

Some Facts About the School.

For the twelve months ending March 1, 1915, there were treated in the Bell Memorial Hospital 1,099 patients; and there were 20,838 patient days, making an average of 54.3 patients in the hospital daily. In the dispensary, during the same period, there was a total attendance of 9,602; and an average daily attendance of 32 patients. In the same period, there were 40 patients who received pasteur treatments for the prevention of hydrophobia. As the regular fee for Pasteur treatment is ordinarily \$125.00; and as these treatments were administered free of charge, it meant a direct saving of \$5,000. I would add that none of these 40 patients had the necessary means to pay the regular cost for this service. In addition to this, the school of medicine offered a special school for health officers which was held in the second week in June, there being an attendance of seventy-five physicians from all over the state.

When it is stated that the number of graduates this year is twelve (the actual number being fifteen), no comment is made upon the fact that in the classes of the first two years there are many more students (this year there being forty-three first-year students and thirty-one second-year students). This is to say that at least half of the medical education of this much large number is furnished by the University of Kansas, and these students feel compelled to go elsewhere on account of the limitation of the facilities of the school of medicine of the University of Kansas. At present, there are thirty-one students in the second-year class. Any building that would have been erected with money appropriated by the 1915 legislature would not have been available for use until after the graduation of this class. Therefore, before the end of this biennium, unless these students go elsewhere, the facilities (at present inadequate for more than twenty students) will be greatly over-taxed. It is interesting to note, however, that a number of men in the second-year class were actually await-

ing the final action of the legislature before deciding whether or not they would remain with the University of Kansas, or go elsewhere.

M. T. S.

SOCIETY NOTES.

SEVENTH DISTRICT SOCIETY.

The April meeting of the Medical Society of the Seventh District was held in Hutchinson, Thursday, April 29. The following program had been prepared:

9:12 A. M.

Visiting doctors welcome at Mercy, Stewart and Welch Hospitals.

1:30 P. M.

Gastric Hemorrhage,

Dr. J. E. Foltz, Hutchinson, Kansas.
Discussion,

Dr. M. Trueheart, Sterling, Kansas.
How Can We Best Limit and Control the
Perils of Pregnancy,

Dr. W. S. Harvey, Salina, Kansas.
Discussion,

Dr. H. E. Haskins, Kingman, Kansas.
Fractures and Dislocations,

Dr. H. G. Welsh, Hutchinson, Kansas.
Discussion,

Dr. C. Klippel, Hutchinson, Kansas.
Laryngectomy for Cancer of the Larynx,

Dr. P. H. Owens, Great Bend, Kansas.
Discussion,

Dr. W. O. Thompson, Dodge City, Kan.
Internal Eye Complications in Systemic
Diseases,

Dr. H. L. Scales, Hutchinson, Kansas.
Discussion,

Dr. J. H. Schrant, Hutchinson, Kansas.
"A Plea for a New Specialist,"

Dr. T. A. Jones, Liberal, Kansas.
Discussion,

Dr. N. A. Seehorn, Hutchinson, Kansas.

MARION COUNTY SOCIETY.

The Marion County Medical Society met in regular session at Florence, Kan., on Wednesday, April 14.

Councillor Currie was present and urged upon the Society the observance of the wishes of the Council of the State Medical

Defense Board regarding giving him immediate notice and charge of any suits for mal-practice against members.

Dr. Eye not being present and Dr. Wagner not prepared the time was given to the reading of a paper by Dr. McIntosh and discussion by the members on the subject of "How Should Sex Hygiene be Taught?"

The next meeting will be at Peabody on Wednesday, June 9th. Members kindly refer to programs.

C. L. APPLEBY, Secretary.

LABETTE COUNTY SOCIETY.

The Labette County Society met April 28th, in Parsons, in the offices of Drs. Smith and Creel.

Dr. Creel showed a patient who had made an almost perfect functional and anatomic recovery from a double fracture of the femur; he also read a paper on "Fractures."

Dr. Rotter reported a case of vicarious menstruation, the flow of blood being from the umbilicus and from two spots on the abdomen. Dr. Rotter also reported a case of uterus septus with two vaginae.

Dr. Missildine read a paper on "The Pathology of Acute Osteo-Myelitis."

Dr. Smith demonstrated a considerable number of X-ray plates, most of them dealing with unusual fractures.

O. S. HUBBARD, Secretary.

M'PHERSON COUNTY SOCIETY.

We are starting the work in our County Society in good shape and expect to have a good years.

Officers for the ensuing years are: Dr. Salthouse, McPherson, Kan., President; Dr. Beckman, Lindsborg, vice-president; Dr. O. W. Sprouse, Inman, Kan., Secretary.

Dr. Sprouse was also appointed delegate from McPherson County to the State meeting at Kansas City, May 5-6.

We are in better shape now than last year and feel that we are entitled to a better report.

OSCAR W. SPROUSE, M. D., Sec'y.

DOUGLAS COUNTY SOCIETY.

The regular monthly meeting of the Douglas County Society was held in the Y. M. C. A. building at Lawrence, Tuesday, April 13th.

Prof. S. A. Mathews presented a paper on "Physiology of the Heart—Recent Research."

E. J. BLAIR, Sec'y.

WYANDOTTE COUNTY SOCIETY.

At the regular meeting of the Wyandotte County Society on Tuesday evening, April 13, Dr. S. S. Glasscock presented a paper on "Serum Treatment of Paresis and Lomotor Ataxia" with reports of cases.

At the regular meeting on Tuesday evening, April 27, Dr. Lindsay S. Milne presented a paper on "Nephritis".

DECATUR-NORTON COUNTY SOCIETY.

A meeting of the Decatur-Norton County Medical Society was held in Doctor W. C. Lathrop's office, at Norton, Kansas, on Thursday, April 1st, 1915. Those present were: Doctors Lathrop, Cole, Hardesty, Kennedy and Kenney. The following program was given: "Annual Address," by President Hardesty, and "The Ethics of Quarantine," by C. W. Cole. A general discussion followed the program and the visiting doctors were entertained in the evening by the Norton physicians.

The following officers were elected: President, H. O. Hardesty, Jennings; vice-president, C. W. Cole, Norton; vice-president, O. M. Cassell, Long Island; delegate to state meeting, W. C. Lathrop, Norton; alternate, H. O. Hardesty.

The following members were elected to membership: F. E. Richmond and A. G. Davis, Long Island; B. F. Jeffers, St. Francis; Henry Weimer, Atwood and F. B. Kennedy, Norton. Reinstated: E. L. Davis, Rexford, and F. E. Gaither, Lenora.

C. S. KENNEDY, Sec'y.

BOOK REVIEWS.

Diagnostic and Therapeutic Technic.

Second Edition, thoroughly revised. A manual of practical procedures employed in diagnosis and treatment. By Albert S. Morrow, M. D. Clinical professor of surgery, New York Polyclinic. Octavo of 834 pages, with 860 illustrations. Philadelphia and London. W. B. Saunders Company, 1915. Cloth, \$5.00 net; half morocco, \$6.50 net.

This book is unique. It is in really a book for emergencies. In conveniently accessible form, the details for all those procedures in modern diagnosis and treatment occasionally necessary, are placed in the hands of the physician.

The first hundred pages are devoted to anæsthesia and in this section the various methods are described and the points for discrimination in the selection of the anæsthetic are detailed. The various methods and agents used for local anæsthesia are arefully reviewed.

In careful detail there is given the technic for blood transfusion, infusions of physiologic salt solutions, acupuncture, venesection, cupping, leeching, hypodermic and intramuscular injections, administration of antitoxins, collection and preservation of pathological material, exploratory punctures, aspirations, and a great many other things that one might need to do at any time, and for the details of which one might have to search through several books. We have placed this book next to the dictionary in our library.

Infection, Immunity and Specific Therapy.

A practical text-book of infection, immunity and specific therapy with special reference to immunologic technic. By John A. Kolmer, M. D., Dr. P. H., Instructor of Experimental Pathology, University of Pennsylvania, with an introduction by Allen J. Smith, M. D., professor of pathology, University of Pennsylvania. Octavo of 899 pages with 143 original illustrations, 43 in colors. Philadelphia and London. W. B. Saunders Company, 1915. Cloth, \$6.00 net, half morocco, \$7.50 net.

A subject to which so much time and thought have been given and upon which so much has been written for the journals, ought certainly appeal to the author and the publisher. A book upon this subject will most surely attract those who have tried to keep up with the newer thought in medicine.

Infections, Immunity and Specific Therapy is a very large subject. It is a subject about which many facts are known, but in connection with which there are also so many theories that no exhaustive exposition can at this time be made. Much that is written now will most likely be modified or superseded by newer thought and results of later investigations. This will not detract from one's interest in this very complete compilation of the present knowledge and the most popular theories along these lines, for the author seems to have embodied in this book all that is known upon the subject.

The material is well handled and every topic is presented as clearly and concisely as thoroughness will permit. The terms used are carefully explained so that the text may be easily understood even by those who have not kept up with the current literature along this line.

If it is ever correct to speak of books as timely we should put this one in that class.

Medical Electricity and Rontgen Rays and Radium.

Second Edition, thoroughly revised. By Sinclair Tousey, A. M. M. D., consulting surgeon to St. Bartholomew's Clinic, New York City. Second edition, thoroughly revised and enlarged. Octavo of 1,219 pages, with 798 practical illustrations. 16 in colors. Philadelphia and London. W. B. Saunders Company, 1915. Cloth, \$7.50 net; half morocco, \$9.00 net.

Most every practitioner has dabbled more or less in electro-therapeutics, but very few of them have found that their results have justified the expenditure for the necessary apparatus. Occasionally this may have been the fault of the apparatus, or the lack of proper current, but in the majority of cases it is because the physician has not been sufficiently well informed upon the subject of electricity and its effects.

Electro-therapeutics is a subject of such vast scope and such intricacy of detail that one's whole time is required for its proper understanding and efficient application. But electricity is now made so adaptable to the many uses of the physician and surgeon that it is practically indispensable

and one must of necessity acquire some working knowledge of it.

Tousey has presented as nearly a complete text on the subject as its continued rapid progress will permit. The revised edition has brought the subject matter practically up to date, covering all the advances which have been made in this field since the first edition was published.

A Text-Book of Diseases of the Nose and Throat.

By D. Braden Kyle, A. M., M. D., Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia. Fifth edition, thoroughly revised and enlarged. Octavo of 856 pages with 272 illustrations, 27 of them in colors. Philadelphia and London. W. B. Saunders Company, 1914. Cloth, \$4.50 net.

A collection of all the books that have been written on diseases of the nose and throat makes quite a library, but with two or three such books as Kyle has written one might dispense with all the rest and suffer no inconvenience and be conscious of no great loss.

A large number of the books on this subject have been written for the convenience of the busy practitioner, so that he might, in a few moments, acquire a superficial knowledge of these diseases. It is very doubtful if any particular benefit has been derived by the general practitioner or his patient by the publication of these books.

Kyle was early in the field with a very complete and exhaustive treatise on these diseases and his work is still one of the very few that really cover the subject in a satisfactory manner.

In the fifth edition, which has been thoroughly revised, several new articles have been added, bringing it well up to date.

Differential Diagnosis—Volume II.

Presented through an analysis of 317 cases. By Richard C. Cabot, M. D., Assistant Professor of Clinical Medicine, Harvard Medical School. Octavo of 709 pages, 254 illustrations. Philadelphia and London. W. B. Saunders Company, 1914. Cloth, \$5.50; half morocco, \$7.00.

To those who are familiar with the first volume of this work it is only necessary to say that the same plan has been followed in the second volume.

In this volume nineteen additional symptoms have been analysed and illustrated. 317 cases are given, under the following heads: Abdominal and other tumors; vertigo; diarrhoea; dyspepsia; hematemesis; glands; blood in the stools; swelling of the face; hemoptysis; edema of the legs; frequent micturition and polyuria; fainting; hoarseness; pallor; swelling of the arm; delirium; palpitation and arrhythmia; tremor; ascites and abdominal enlargement.

In the statement of these cases there is given the history, the symptoms, the methods of examination and results, a discussion of the case as presented, and, whenever possible, the outcome.

An analysis of individual cases as they occur is of much greater practical value than a description of typical cases. One seldom meets a typical case of anything, but, at any rate, it is not the typical cases that are difficult to diagnose. One likes to have the reports of cases of rather less pronounced lines of distinction, but with the existing conditions clearly stated and the final definite findings in the case.

Our literature has been greatly enriched by this collection of cases and accompanying discussions.

—R—

The following resolution was submitted to and adopted by the House of Delegates at the last meeting of the Kansas Medical Society:

WHEREAS: There seems to be a doubt in the minds of some as to the wisdom of the state conducting professional schools including the school of medicine, and;

WHEREAS: The attitude of the state towards the school of medicine and the state hospital for the treatment of the indigent poor of the state should be clearly defined and its policy definitely settled for all time;

THEREFORE BE IT RESOLVEDS That the Kansas Medical Society, representing the constituent county societies of the state, in annual session, do hereby record our belief in medical education by the state,

as practiced by practically all European countries and twenty-nine states of this country; that such state function is consistent with the settled policy of educating lawyers, engineers, pharmacists, teachers and farmers, and, in our judgment, of more vital interest to the health and efficiency and therefore to the happiness and prosperity of the state than the education of any other trade or profession.

We further believe that the value to the citizens of the state, through the operation of the teaching hospitals is infinitely greater than the cost of educating the young men of Kansas to be competent doctors and the young women to be trained nurses.

BE IT FURTHER RESOLVED: That we respectfully petition the Governor of Kansas and the next legislature to make adequate provision for the actual needs of the School of Medicine and the Bell Memorial Hospital, etc., and that copies of this resolution be sent to the Governor, the Board of Administration, and printed in the Journal of the Kansas Medical Society.

—R—

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF AUGUST 24, 1912

of The Journal of the Kansas Medical Society,
Published Monthly at Topeka, Kansas,.....
.....for April, 1915

Name of—	Postoffice Address
Editor, W. E. McVey.....	Topeka, Kan.
Managing Editor, W. E. McVey.....	Topeka, Kan.
Business Manager, W. E. McVey.....	Topeka, Kan.
Publisher, W. E. McVey, under direction of the Council of the Kansas Medical SocietyTopeka, Kan.

Owners: (If a corporation, give its name and addresses of stockholders holding 1 per cent or more of total amount of stock. If not a corporation, give names and addresses of individual owners.)

KANSAS MEDICAL SOCIETY.

Dr. W. F. Sawhill, Concordia.....	President
Dr. Chas. S. Huffman, Columbus.....	Secretary
Dr. L. H. Munn Topeka.....	Treasurer

Known bondholders, mortgagees, and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities: (If there are none, so state.) None.

Sworn to and subscribed before me this 24th day of March, 1915.

(SEAL)

R. A. FERLET,
Notary Public.

(My commission expires February 20th, 1916.)

MISCELLANEOUS.

New and Non-Official Remedies.

Since publication of New and Non-official Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies."

Standard Radium Solution for Bathing: A 5.2 per cent barium chloride solution containing radium chloride equivalent to 4.2 micrograms of radium per bottle. For "Actions and Uses" see the article on radium in New and Non-official Remedies. The barium in the solution is said to have no effect. The contents of a bottle, containing 4.2 microcuries or 10,000 Mache units are used for a bath. The Radium Chemical Co., Pittsburgh, Pa., (Jour. A. M. A., April 17, 1915, p. 1325).

Standard Radium Solution for Drinking—A solution of 2 micrograms of radium and 1.3 mg. barium chloride per bottle of 60 c. c. For "Actions and Uses" see the article on radium in New and Non-official Remedies. In view of the small barium content, it is claimed that the physiologic action of barium may be ignored. The Radium Chemical Co., Pittsburgh, Pa. (Jour. A. M. A., April 17, 1915, p. 1325.)

Standard Radium Earth—A mixture consisting chiefly of silica and small quantities of carnotite, 450 gm. containing 0.45 micrograms of radium in the form of radium sulphate. For "Actions and Uses" see the article on radium in New and Non-official Remedies. For use the earth is mixed with water and heated for a time. The Radium Chemical Co., Pittsburgh, Pa. (Jour. A. M. A., April 17, 1915, p. 1325.)

Standard Radium Compress—A compress containing 225 gm. of a mixture consisting chiefly of silica and barium sulphate containing radium sulphate equivalent to 15 micrograms of radium. For "Actions and Uses" see the article in New and Non-official Remedies on radium. Being applied wet, it is claimed that the action is partly due to beta and gamma

radiation of the radium salt and partly to the radium emanation which is dissolved out by the water. The Radium Chemical Co., Pittsburgh, Pa. (Jour. A. M. A., April 17, 1915, p. 1325.)

—R—

EXAMINATION OF CANDIDATES FOR ASSISTANT SURGEON.

Treasury Department, United States Public Health Service.

Washington, April 24, 1915.

Boards of commissioned medical officers will be convened to meet at the Bureau of Public Health Service, 3 "B" Street, S. E., Washington, D. C., and at the Marine Hospitals of Boston, Mass., New York, N. Y., Chicago, Ill., St. Louis, Mo., Louisville, Ky., New Orleans, La., and San Francisco, Cal., on Monday, June 21, 1915, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health Service, when applications for examination at these stations are received in the Bureau.

Candidates must be between 23 and 32 years of age, graduates of a reputable medical college, and must furnish testimonials from two responsible persons as to their professional and moral character. Service in hospitals for the insane or experience in the detection of mental diseases will be considered and credit given in the examination. Candidates must have had one year's hospital experience or two years' professional work.

Candidates must be not less than 5 feet, 4 inches, nor more than 6 feet, 2 inches in height, with relatively corresponding weights.

The following is the usual order of the examinations: 1, physical; 2, oral; 3, written; 4, clinical.

In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate and that they will serve wherever assigned to duty.

The examinations are chiefly in writing,

and begin with a short autobiography of the candidate. The remainder of the written exercise consists of examination in the various branches of medicine, surgery and hygiene.

The oral examination includes subjects of preliminary education, history, literature, and natural sciences.

The clinical examination is conducted at a hospital.

The examination usually covers a period of about ten days.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order. They will receive early appointments.

After four years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon.

Assistant surgeons receive \$2,000, passed assistant surgeons, \$2,400; surgeons, \$3,000; senior surgeons, \$3,500, and assistant surgeon generals, \$4,000 a year. When quarters are not provided, commutation at the rate of \$30, \$40, and \$50 a month, according to the grade, is allowed.

All grades receive longevity pay, 10 per cent in addition to the regular salary for every five years up to 40 per cent after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For invitation to appear before the board of examiners, address "Surgeon-General, Public Health Service, Washington, D. C."

—————R—————

TUBERCULOSIS "REMEDIES" THAT ARE WORTHLESS.

No Real Cure Possible From Any of the Patent Preparations Investigated by Government Scientist.

Washington, D. C.—After investigating under the Food and Drugs Act, a large number of preparations advertised as consumption cures, the Department of Agri-

culture has not been able to discover any that can in any sense be regarded as "cures" for tuberculosis. Some contain drugs that may, at any time, afford some temporary relief from the distressing symptoms of the disease, but this is all. Since the passage of federal legislation prohibiting the shipment in interstate commerce of medicinal preparations for which false and fraudulent claims are made, there has been a marked tendency to label these preparations "remedies" instead of "cures" or "infallible cures" as they used to be called. In many cases, however, they cannot even be regarded as remedies.

A "cherry balsam," for example, for the "cure" of "consumption" and "hemorrhage of the lungs," which it was represented would "strike at the very root of the disease" was found on analysis to be nothing but a solution in water and alcohol of opium, sugar, benzaldehyde, inorganic salts and coloring matter. It contained no cherry bark extract or balsam.

A more elaborate "cure" consisted of five different preparations which the credulous patient was to take separately. They were first, the medicine proper, the essential ingredients of which were found to be morphine, cinnamic acid and arsenic—not a very safe mixture to take habitually; second, a tonic which was supposed to contain iron but did not; third, a "cough mixture" made up of alcohol, chloroform, and codeine, which is a derivative of opium or morphine; fourth, a mixture which contained some quinine, and a solution of water and alcohol; and fifth, codeine tablets. Even the strongest constitution could hardly stand a prolonged course of such a treatment.

In the marketing of such preparations considerable ingenuity is frequently shown. One of the main objects is to persuade the patient that he is receiving, at a comparatively low price, the individual attention of a trained specialist. For this purpose, symptom blanks are employed. These contain a number of questions about the patient's symptoms, the number varying from a dozen or so to as many as 70

or 80. The patient is led to believe that the information which he furnishes in reply to these questions will be carefully considered before any medicine is prescribed for him, though every physician knows that an accurate diagnosis cannot possibly be made in this way. As a matter of fact none is attempted and the degree of attention which these individual reports receive can be measured by the fact that cases have come under the observation of the department in which mail order concerns doing a business of this kind have received as many as 4,000 letters a day.

After the patient has submitted his "diagnosis report" he is urged to purchase a supply of the medicine. If he does so, he is then urged to purchase more. If he states that he has experienced no beneficial effects he is told that he has not taken enough, and this process is likely to continue until the limits of his credulity have been reached. If, on the other hand, he decided at the beginning not to purchase the medicine it is likely to be offered to him at successively lower prices until he is at last induced to believe that he cannot afford to ignore such a bargain. This is carried to such an extent that a "treatment," the original price of which is \$25, may be offered at the end of six months for \$2.50.

As a matter of fact the successful treatment of tuberculosis requires much more than the mere giving of medicine, and, moreover, what will help one case will not necessarily help another. Claims that are absolutely unwarranted are no longer permitted on the labels of medicines shipped in interstate commerce, but the wording may be such as to convey a misleading impression without the use of absolute statements. Thus these preparations continue to find a sale despite the fact that a little trouble on the part of the prospective purchaser will reveal their worthlessness.

R

Artificial Pneumothorax.

A tabulation of thirty-four cases of pul-

monary tuberculosis treated by artificial pneumothorax is given by L. S. Mace, San Francisco, (Journal A. M. A., March 13, 1915). He tabulates the data as to the stage of the disease, the date of the first operation, the results and remarks on the same. The date of the first operation only is given, the subsequent fillings had been given as often as circumstances warranted. Nineteen of the patients were operated on on account of progressive disease; fifteen of them in a sanitarium admitting only early cases or those of good prognosis. In four cases the compression was not successful, owing to adhesions. Two showed no improvement, two temporary improvement only, ten were discharged as arrested or improved cases, and remain in a satisfactory condition. Four of these had cavities on one side, and six were in the second stage only. From these figures, he says, it is clear that although we may expect a recovery in 50 per cent of selected cases, the recovery rate diminishes as the areas of aortic softening increase and cavities are formed. Hemorrhage is one of the most important indications for the operation. Where there are large cavities, much relief from distressing symptoms may be obtained, and removal of fluid with temporary compression is the most rapid and effective method of healing large pleuritic effusions. Hemorrhage is usually promptly and permanently relieved by artificial pneumothorax, and compression of one lung does not induce increased activity of the disease in the other.

R

Analgesia and Childbirth.

J. C. Webster, Chicago (Journal A. M. A., March 6, 1915), reports his experience during the last ten years with nitrous oxid gas in obstetric complications, and during the past year, it has been employed regularly by the staff of the Presbyterian Hospital to abolish pain in the second stage of labor. The technic is very simple. The administration is begun as a rule when the second stage pains are felt by the patient, though sometimes in the lat-

ter part of the first stage. A small nasal inhaler is used, the mouth of the patient being uncovered, and the gas bag is kept under low pressure. The patient is instructed to breathe quietly with closed mouth. This usually suffices to produce analgesia, and does not interfere with the expulsive efforts in the progress of labor. As soon as the uterine contraction begins to subside, the inhaler is removed, and the patient becomes again conscious. The nurse or assistant may be instructed to administer the gas satisfactorily, and it may be continued for hours if necessary. The amount of gas used varies, and the cost accordingly. The method is recommended as the safest and simplest method for painless labor, and its advantages over the much advertised "twilight sleep" are detailed. It can be used at home as well as in a hospital, and requires no special arrangements such as are called for in the scopolamin-morphin method.

R

Intestinal Amebiasis.

Gleen I. Jones, Washington, D. C. (Journal A. M. A., March 20, 1915), says there still exists considerable confusion in the interpretation of the symptoms and signs leading to an accurate diagnosis and prognosis of amebiasis. It has been demonstrated that amebiasis may exist in a mild or even in an advanced form without dysentery, and that dysentery may exist for months or years after amebic ulceration without amebiasis. There is no doubt that in ipecac and its alkaloid we have a specific in this disease, but Jones is convinced from his experience with fifty cases that emetin hydrochlorid, if used alone, will not cure amebic dysentery nor prevent relapses. The same is true of ipecac alone, but he has found that emetin given by hypodermic, accompanied or followed by the use of ipecac given by the mouth, will be curative in most cases. It seems that emetin kills the amebas in the blood stream, but it has little effect on those in the intestinal canal or the outer edges of the ulcerations, while ipecac has directly the opposite action. Ipecac has

the drawback of producing nausea and vomiting, but he has found that several administrations of emetin produce a tolerance, markedly lessening these disagreeable effects. The method of administration used in the Manila Hospital is thus described: "Emetin hydrochlorid 0.008 gm. by hypodermic ten days (twice a day for four days and once a day for six days). Ipecac started about the eighth day with from 1.5 to 2 gm. doses given at bedtime, continued for three consecutive nights and thereafter decreased by 0.3 gm. each consecutive night. The disagreeable effects of the ipecacuanha were never manifested. It is quite necessary to precede the administration of ipecacuanha by tinctura opii in from 0.6 to 1 gm. doses." After this treatment, each case should be considered one of ulcerative colitis and treated accordingly, using every effort to enhance resistance, by change of climate, tonics, etc.

R

Baldness.

"Baldness is much commoner in men than in women. This is true, however, only of complete baldness; thinning of the hair as a result of nervousness and other depressing influences on the health is commoner, perhaps, in women than in men. The reasons for the occurrence of baldness less frequently in women than in men are probably various. In the first place, women give much more attention to the toilet of the hair—to brushing it, and to keeping it clean and in good condition; their hats are light things that merely rest on the hair, and finally, the fat layer of the scalp, as of the skin generally, is more abundant in women than in men and atrophies later in life. Men sometimes is inclined," say The Journal of the American Medical Association, "to have it that baldness is a sign of intelligence and a result of mental labor and that that is the reason it is commoner in men. This fiction is one of the few consolations that can be urged for the condition, and it seems mean to disturb it, but, truth to tell, there is no ground for it. Baldness may make one look wiser, but it occurs indif-

ferently in the great and the small, and it is no more a sign of wisdom than long hair is of genius.

"The broad fact seems to be that in the common occurrence of baldness we have a manifestation of a transitional stage in man's evolution. The hair on the body now is the vestige of a former abundant coat. In the economy of nature, structures atrophy and disappear when they cease to have function, and the need of warmth and other protection afforded by the hair is no longer of great importance to man. Man now uses a hat instead of relying for protection for his head on a shock of hair as his ancestors did, and, as a result, in spite of all his coaxing, the shock of hair is gradually vanishing. This does not mean that you and I can save our hair by discarding our hats. We are a result of our ancestors, and to save our hair we would have to discard the hats of all our ancestors for scores of generations back.

"According to this view, heredity is one of the great causes of baldness, and all statistics indicate that this is true. In the statistics of Jackson and of White, the condition is due to heredity in from 30 to 40 per cent of the cases.

"Mistreatment of the hair is also an important factor in the production of baldness. Daily wetting of the hair, especially if no attention is given to drying it, keeping it poor in oil by excessive use of soap and water without supplying any fat in place of that removed, failure to keep it clean, excessive exposure to sunlight, the indiscriminate use of drugs, particularly 'hair tonics,' and overzealous treatment by barbers and hairdressers—all of these causes are influential in the production of baldness, and are to be guarded against, particularly in the care of hair of those who have already a predisposition to the condition.

"The effects of heavy and tight hats by interfering with the circulation of the scalp is considered to be of great importance, and there can be little doubt that it is a factor to be considered. Hats should

be light. They should provide for circulation of air, and should not bind the head. It can at least be said for women's hats that usually they are better in these respects than men's.

"But after all other factors have been considered, we must still come back to seborrheic dermatitis—dandruff—as the most important cause, and the one to which most care must be given in preventing baldness. According to White's statistics, it is a factor, and perhaps the chief factor, in 79 per cent of the cases; according to Jackson's, in 72 per cent, and according to Elliot's in 91 per cent."

—R—

The Hen as a Possible Typhoid Carrier.

The problem of the carrier in various infectious diseases has long vexed the sanitarian who is bent on discovering every possible mode of transmission and every portal of entry for the germs. Human carriers of typhoid and diphtheria germs, themselves immune to attacks of the malady, are now watched for in nearly every community, and the danger which they represent as a latent source of infection is clearly recognized. Doubtless, says The Journal of the American Medical Association, many of these possibilities for spreading disease without the presence of detectable symptoms are still unrecognized. In typhoid, it has been shown that some of the lower animals may be made typhoid carriers; and attention has lately been directed to such animals as might be expected to become carriers by reason of their environment or habits. Mitchell and Bloomer of the bacteriologic laboratory of the University of Missouri have pointed out that the chicken is a domestic animal which might often come into contact with typhoid discharges. The mechanical transference of typhoid bacilli on the feet and bill of a chicken does, without question, occur. By various methods they have attempted to follow the germ. From the work of the Missouri bacteriologists it would seem that the hen is highly resistant to typhoid. It not only fails to take the disease, but

apparently cannot be made a carrier except in a mechanical way.

—R—

Reversal of the Circulation.

J. S. Horsely, Richmond, Va., and R. H. Whitehead, University, Va. (Journal A. M. A., March 13, 1915), have experimented on dogs with the operation for reversing the circulation in the lower extremity—that is, attaching the cardiac end of the artery to the distal end of the vein, and the distal end of the artery to the cardiac end of the vein, which had been reported as possible in dogs by Carrel and Guthrie, but which had been considered as of little actual value by Halsted and Vaughan. They had not themselves been convinced of its therapeutic value or its justifiability, since in order to prove that it is such by giving more nutrition it must be established that the arterial blood in the reversed vein reaches the ultimate capillaries of the foot. In case it does, how is the arterial blood returned to the heart? Twelve operations were done on dogs, and the results are given with the dissections made by Whitehead. Only five of the twelve dogs were injected with gelatin and powdered cinnabar and bismuth for purposes of roentgenoscopy. They conclude that the operation has no legitimate place in clinical surgery except possibly in Raynaud's disease, if we accept this solely as a spasm of the arterioles. It seems unjustifiable in gangrene due to organic disease of the artery, where the operation of ligating the femoral vein seems more suitable.

—R—

Body Changes During Vomiting.

As a result of the detailed study of vomiting induced by digitalis or apomorphin given subcutaneously, or by zinc sulphate or magnesium sulphate administered orally, Brooks and Luckhardt have ascertained that vomiting is accompanied by marked changes in the circulatory system and interference with respiration. There is seen sometimes a period of elevated pressure. More frequently, how-

ever, and contrary to inherited expectations, one witnesses a sudden and enormous drop in blood pressure, with cardiac inhibition at the moment of emesis, but always periods of great oscillations in the blood pressure. These great and sudden oscillations of the blood pressure may cause a rupture of blood vessels which would not occur with the same pressure, but with slower changes. The faint feeling accompanying emesis may be the result of the cerebral anemia occasioned by the cardio-inhibition and resulting drop in blood pressure. The danger of damage to the vascular system is not minimized by these newer investigations; but the responsibility for possible harm is shifted from hypertension to the sudden variations in the condition of the circulatory apparatus.—Journal A. M. A.

—R—

Gas Gangrene in War.

The worst septic complication of wounds that has been seen frequently during the present war is the so-called gas gangrene. The cases as a rule begin as a cellulitis with much gas formation and rapid sloughing of tissues, and then gangrene eventually develops, running a rapid course. The causative agent has always so far been found to some form of an anaerobic organism. It is not always the same organism. Pus is not produced in the early stages, but only sloughing and gas formation. Later on, if there is a reaction toward recovery, the pyogenic organisms gain a foothold and predominate in the condition, and pus is freely produced in the devitalized tissues. Frequent irrigation with hydrogen peroxid has done the most good. A stream of oxygen gas directly on the wound has given good results. "Lately Sir Almroth Wright has suggested placing gauze, wrung out of 5 per cent salt solution, between the muscles and connective tissue planes, in order to encourage the outpouring of lymph. This has appeared to be an excellent method of treatment."—Journal American Medical Association.

Urticaria.

A case of urticaria treated by human serum obtained from the brother of the patient, by the late W. Swann, of New York, is reported in the *Journal A. M. A.*, Feb. 27, 1915. The treatment was suggested by the increased coagulation time of the blood, and the fact that when a drop of fresh human serum was added to the patient's blood, the time returned to normal. The history here given merely shows results in one type of case, and is not offered as applicable to all types. The results of the treatment were good in this thoroughly reported instance.

—R—

The Effects of Weather.

It is not all uncommon to hear that a patient feels well or ill parallel to changes of the weather. There is no doubt that barometric and above all hygrometric changes produce distinct and often marked variations in sensation. Probably no information, however, is more fallacious than the vague general impressions with regard to these effects of the weather that are supposed to be common knowledge. For instance, it is a shock to most persons to learn that though dark, rainy days are supposed to produce depression, and bright, sunny weather to lift clouds of despondency, suicides are most frequent in June and least frequent in December. Cold weather is supposed to be a great source of suffering and consequent depression, especially to the working classes, and yet the cold winter months have fewest suicides and the warm summer weather the most. It is not the extremes of heat, however, which produce the despondency and ill feeling that lead up to suicide, for the climax of the curve of suicides is not reached in July or in August, when people have become run down from the persistence of hot weather, but in the pleasant month of June.

Evidently careful study is needed in order to determine the exact effect of weather on the disposition and the feelings. A careful analysis of suicide statistics was made by Dexter, who analyzed

2,000 cases of suicide in one American city. When studied in connection with the weather tables, the fact was revealed that "the clear dry days exhibit the greatest number of suicides, and the wet, partly cloudy days the least; and with differences too great to be attributed to accident or chance. In fact there are 31 per cent more suicides on dry than on wet days, and 21 per cent more on clear days than on days that are partly cloudy."—*Journal American Medical Association.*

—R—

Pulsus Alternans.

J. B. Herrick, Chicago (*Journal A. M. A.*, Feb. 27, 1915), suggests a method of determining the variations of strength of pulse by increasing or decreasing the pressure of the cuff of the sphygmomanometer, a method which so far as he knows, has not been described by others. As an illustration he says, in a case of symptoms indicating high blood pressure but where no irregular rhythm or difference in strength of pulse beats can be made out by palpation of the radial artery, when the pressure of the manometer reaches 195 mm. of mercury, the radial pulse which had been 80 drops to 40, and remains at that rate till 210 mm. is reached, then disappearing, testing in the reverse order and watching the changes in the added beats, it can be seen that the pulse is clearly of the alternatng character. Sometimes other instruments may be required, but this will serve in most cases; and while the information given is not always essential, it is a help in making the prognosis, the pulsus alternans being rightly regarded as often indicating a serious impairment of the muscular efficiency to the heart.

—R—

Safe on First.

Mother (looking through magazine): Darling, I see from statistics given here that every third baby born in the world is a Chinese.

Father (fondling his first-born): Then thank God this is our first.—Everybody's.

Nitrous Oxid Gas in Obstetrics.

F. W. Lynch, Chicago (Journal A. M. A., March 6, 1915), reports that since July, 1913, he has used nitrous oxid gas in long continued analgesia in obstetric work, and has kept it up for more than an hour in thirty-four cases. The method used must not be confounded with the older use of gas for complete anesthesia about the time of actual birth. He uses a nosepiece such as that employed by dentists, and the patient is told to breathe deeply but rapidly through the nose. Five or six respirations produce analgesia, and then the nosepiece is put over the mouth, the patient told to breathe through the mouth, and the analgesia is maintained by mixing oxygen with the gas until the end of the pain.

THERAPEUTIC NOTES

Any reasonable pretext that encourages exercise among the patients is encouraged by the Battle Creek Sanitarium. Among the ingenious methods of luring the semi-invalid to the healthful out-ofdoors, the sanitarium maintains health gardens. These gardens are little squares of soil where patients may raise a crop of vegetables and a crop of health at the same time. Actual gardening is carried on under the direction of physical instructors who are present to see that the patients do not exercise injudiciously. This "getting-back to the soil" wins the interest and co-operation of many patients who otherwise would remain indoors. As an aid to health-building the health garden has many superior advantages.

R

The Making of Hypodermic Tablets.

The administration of a hypodermic solution is a common enough procedure, yet how many physicians appreciate the responsibility devolving upon the manufacturers of the tablet from which that solution is prepared? Hypodermic tablets are essentially emergency agents. For the most part they are made from powerful drugs. Their use usually denotes a

critical condition upon the part of the patient. The preservation of a life may depend upon the promptness and efficiency of a single little hypodermic tablet. How important, then, that that tablet contain the medicinal component that it is presumed to contain; that it be soluble; that it be therapeutically active.

These thoughts forced themselves upon the minds of the writer on the occasion of a recent visit to the hypodermic-tablet department of Parke, Davis & Co. Here we see the business of hypodermic-tablet making reduced to an actual science. Here we find tablet-making facilities such as exist probably nowhere else in the whole world. The equipment is complete to the last degree. The department is spacious, light, airy, clean. It is in charge of an expert who has long specialized in this branch of pharmacy and who has selected his assistants with rare discrimination. Every worker is an adept. Every hand is schooled to its tasks.

In the manufacture of Parke, Davis & Co.'s hypodermic tablets the components of the various formulas are weighed and reweighed, checked and rechecked by two experienced pharmacists working independently, one acting as a check upon the other, thus guarding against the possibility of error. Then, to be trebly sure, the ingredients are transferred to compartments where they are kept under lock and key to insure against mishap, after which they are again weighed and checked preparatory to the molding process.

Parke, Davis & Co. pride themselves upon the solubility, uniformity, identity and purity of their hypodermic tablets.

R

Some Startling Figures.

It is a startling statement recently made by Prof. Irving Fisher of Yale University, who is chairman of the reference hygiene board of the Life Extension institute. Of 2,000 New York bank clerks subjected to physical examination only three per cent were found to be free from physical impairment or dangerous habits; although their average age is only 33 years, 13 per

cent of these young men and women had hardening of the arteries, 5 per cent had organic heart disease, and 28 per cent had kidney disease. The institute is endeavoring to raise the averages of human life by education along the lines of systematic periodical physical examinations, by which the individual may find his weak spots and by dieting, physical exercise, medical treatment or other forms of personal hygiene overcome these handicaps.

This system was adopted at the Mudlavia Sanitarium at Kramer, Indiana, several years ago, where its efficiency, both in education and results, has been clearly established. They take the logical stand that a man's annual physical inventory is of much more importance than an annual inventory of his commercial assets, chiefly because the success of his business depends upon his health; that while an examination is necessary to intelligently treat disease, it gives the patient information that he should know, that he may himself assist in regaining health and be able to keep his physical condition normal after it has reached that point; that it affords absolute protection from contagious diseases, which every well-guarded sanitarium does not accept and which might be imposed upon it but for this examination. Making this the basis of the treatment, Mudlavia has not only been successful in its own work but it has done much to educate the laity to the value of this modern essential.

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ern Kansas. Would buy drug store (am Registered Pharmacist) or work with drug store. Write prescriptions. Must bear investigation. Address, Journal Kansas Medical Society, Topeka, Kansas.

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WANTED—Location or association with established physician by 1913 graduate, married, 30 years old. Address "B" Journal Kansas Medical Society, Topeka, Kan.

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FOR SALE—A Victor Finsen Light Apparatus. Will sell cheap. Address Journal Kansas Medical Society, Topeka, Kansas.

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The Mechanism of Pelvic Support.

FRANCES A. HARPER, M. D.
Pittsburg, Kansas.

Read before State Society, Kansas City, May, 1915.

In considering the mechanism of pelvic support, it is my purpose to treat the subject from a rudimentary standpoint, taking up the various structures involved in a somewhat sketching manner, without entering into tiresome anatomical detail.

THE PELVIS is that portion of the abdominal cavity which lies below and behind the ilio-pectineal lines of the innominate bones. Its walls are, for the most part, rigid and composed of bone; behind, it is bounded by the sacrum and coccyx; in front and laterally, by the two innominate bones. The bony wall, however, is deficient at certain points, being partially filled in by various ligaments; again, laterally, there is the wide thyroid foramen, which is closed by the thyroid membrane, and in front there is the gap left by the pubic arch.

Upon the inner aspect of these boundaries there are placed certain muscles. Posteriorly, upon the anterior aspect of the sacrum, are the two pyriformes muscles; laterally, upon the inner aspect of each innominate bone, is the obturator internus muscle; and in addition there is a strong aponeurotic membrane, called the parietal layer of the pelvic fascia, which forms a complete lining for the pelvis, being placed upon the deep surface of these muscles, and bearing a very important relation to the intra-pelvic structures.

The pelvis, therefore, may be regarded as consisting of three strata:

- (1) A bony, ligamentous, and membranous stratum.
- (2) A muscular stratum.
- (3) An aponeurotic stratum.

This aponeurotic stratum is the one to which I desire to direct your especial attention,—the one which plays a very active part in the mechanism of pelvic support.

The pelvic cavity is closed below, and separated from the perineum by the visceral layer of the pelvic fascia, which passes inward to the viscera from the parietal layer of the same aponeurosis, and also by the pelvic diaphragm, which is placed upon the under surface of the fascia. This diaphragm consists of the two levator ani muscles and the two coccygei muscles. The pelvic and abdominal cavities are directly continuous above and in front through the pelvic inlet.

Much of the difficulty which is involved in the study of the pelvic fascia will be removed if one will keep constantly in mind two facts regarding it,—(1) That it constitutes a continuous lining for the inner surface of the pelvic wall; (2) That it sends across the pelvic cavity a layer which acts as a partition between the pelvis proper and the perineum. The lining portion of the fascia may be termed the parietal part, and the partition portion the visceral part. If the pelvis contained no viscera, the arrangement would be exceedingly simple, and might be expressed diagrammatically as in Plate 1.

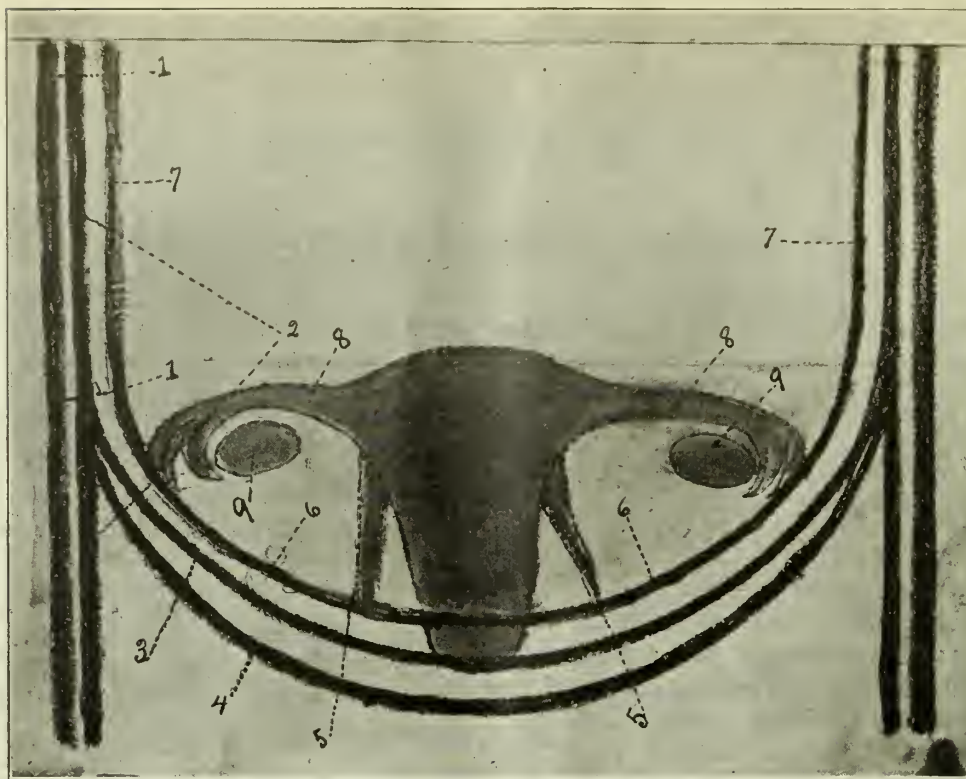


Plate I—Pelvic and abdominal linings of fascia and peritoneum in their simplest form, showing uterus in situ,—swung, hammock-like.

- 1, Bony pelvic wall.
- 2, Parietal layer of pelvic fascia.
- 3, Visceral layer of pelvic fascia.
- 4, Perineal muscles (arising from "white line"

at the splitting of the two layers of pelvic fascia).

- 5, Round ligaments.
- 6, Visceral peritoneum.
- 7, Parietal peritoneum.
- 8, Fallopian tubes.
- 9, Ovaries.

Let us imagine for a moment all the viscera as vanished from both abdominal and pelvic cavities. Only a great space would exist, bounded above by the diaphragm, below by the pelvic floor, and in front and behind by the abdominal parietes. This space would be evenly lined by the peritoneum in the form of a simple closed sac. All the abdominal and pelvic viscera are outside of the peritoneal cavity, although they are obviously within the abdominal and pelvic spaces. That which lines the wall of the abdomen is called the parietal peritoneum, and that part which is reflected on to the viscera is called the visceral peritoneum. Where the visceral layer of the pelvic fascia comes into relation with the viscera, and the connections which it forms with them by its various sub-divi-

sions or layers, give rise to the complexity of the membrane. (The same is true of the peritoneum.) Reaching the lateral aspect of the viscera, it divides into four layers, which act as swings of support in which the various organs are slung,—(1) a vesical layer, which forms the lateral true ligaments of the bladder; (2) a vesico-vaginal layer, which passes between bladder and vagina; (3) a recto-vaginal layer, which proceeds inward between the vagina and rectum; and (4) a rectal layer for the lateral and posterior aspects of the rectum.

The connection between the rectal and vaginal walls is at first very loose, but afterwards becomes much more intimate. This has an important bearing upon the manner in which prolapsus uteri takes place. It should be noticed that while

the greater part of the rectum is supported behind by the sacrum and coccyx, there is fully an inch and a half of its lower portion which rests upon the levatores ani and receives support from the ano-coccygeal body.

Considering the intrinsic ligaments of the uterus as specialized prolongations or digitations of the organ itself, it is easy to understand that any cause, whether physiologic or pathologic, acting upon the uterus, will at the same time affect its ligaments.

Now, spread over, as from the bottom of a closed sac, a blanket of peritoneum, which, dipping down, enfolds these various digitations more or less intimately, and we have a picture of the union of the intrinsic and extrinsic elements, forming the primary links in the chain of attachments connecting and supporting the pelvic organs.

From each lateral border of the uterus the peritoneum stretches outward in the form of a wide fold, called the broad ligament. This connects the organ to the lateral wall of the pelvis and the iliac fossa.

In the male subject the peritoneum forms actually a closed sac; but in the female its walls exhibit two minute punctures, which correspond to the openings of the Fallopian tubes. (In the *Ostium Abdominale* Nature has wisely provided for the destruction or absorption of the ova, should the tubes cease to act as canals for their transmission. It is said that the digestive power of the peritoneum is so great that it will digest beefsteak.)

An important point to notice is that the peritoneal membrane is more adherent to the wall of the uterus than it is to that of the bladder, which gives it somewhat the effect of an attached but floating body bulging into the peritoneal cavity, as it is buoyed up by abdominal pressure—this appearance being very much accentuated in its balloon-like ascension during pregnancy, when pushing all the other viscera aside, it asserts itself by gradually filling the abdominal cavity, with the result that the peritoneal space resolves itself into

two cupped surfaces, gliding one upon the other.

Thus it will be seen that normally the uterus does not hang suspended by its ligaments,—as some might imagine,—but, buoyed up by abdominal pressure, it is poised, balloon-like, above its attachments and supports, with ligaments at rest, but ever ready at the first intimation of displacement or “wandering” to bring it back again, their common function being *to resist or overcome displacement*.

Though more or less marked displacement may take place during physiologic activity of the pelvis organs,—defecation, urination, menstruation and labor,—they should mechanically resume their original positions and relations at the cessation of such activity; and thus do the uterine ligaments become *really active when resisting or overcoming such displacement, and in such manner only should they act*. Equilibrium or poise of the uterus being re-established, its ligaments should remain in a state of suspended animation, relaxed and at rest, until some physiological process brings them again into action.

A body is said to be in stable equilibrium when it tends to return to its original position after its equilibrium has been slightly disturbed. Normally, the uterus is in such a state of stable equilibrium.

Physiological rest (equilibrium) of the uterus is dependent upon the harmonious adjustment of all the factors entering into its support, and may be indicated by the rhythmical transmission of stimuli to or from a given point, which we will call the *center of gravity*.

Now, *physiological rest* being indicated by a perfect balance between all active forces, then *functional activity* should imply the existence of this same state, plus *an excess of action* originating at some one or more points outside of this center of gravity; periods of rest and activity following each other in rapid succession, and the various ligament responding automatically to the increased demand made upon them. This increased demand brings into active use certain ligaments

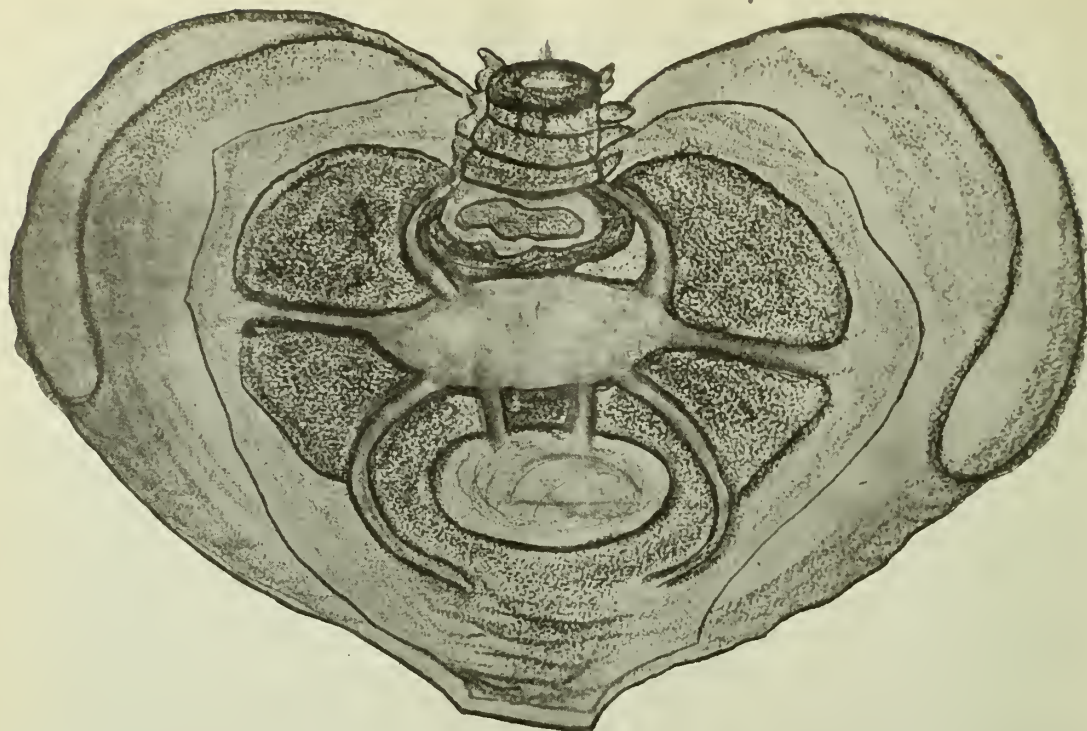


Plate II—Transverse section of pelvic contents, viewed from above, showing uterine ligaments.

which have heretofore remained somewhat passive in action,—the Round Ligaments, placing them strongly on the defensive. Taking their distal extremities as fixed points, their action would be to raise and lower the uterus in the pelvis. In the normally situated, properly poised, physiologically active uterus (menstruation and labor), the cervix relaxes and softens (from relaxation of ligaments), the obliquity of the organ in the pelvis lessens, and it decends slightly in expelling contents in response to rhythmic contractions.

In the normal unimpregnated state the uterine ligaments act as mere connections, hinges, flexible bonds of union, ligaments of position and passive support. In the normal impregnated state their functions are in no wise changed they simply take on an increase in growth corresponding to that of the rapidly developing uterus.

It is only in the active process of labor that one really realizes how wisely and well Nature has provided against a time of great need; that the strength and stability of these ligaments are tested and

tried to their utmost limit of endurance; the time at which they have reached their highest state of development, and thus attained their greatest utility in generating as well as regulating the forces needed to carry safely through Nature's most trying ordeal. Conditions are now all changed from rather passive tonicity to the most active resistance and extreme tension.

Considering the pelvic organs in their entirety, combined with all their intrinsic and extrinsic factors, one's idea of a definite and independent support would be of the solid pelvic wall attachments of the perineal structures below, swung, basin-like, and blending with and supporting the structures above. Above this we have the same idea carried out,—although perhaps less definitely, somewhat more complexly, and more hammock-like in effect,—in the arrangement, relations and attachments of these organs, as they lie between their fascial investments below and their peritoneal coverings and connections above.

The anterior and posterior pairs of ligaments, by their opposed actions, and



Plate III—Schematic arrangement of pelvic organs, poised in space. If by some superhuman process one could suddenly dissolve away all the surrounding structures and attachments between

the pelvic organs, and without changing their relative positions, leave them poised in space, they would appear something like this.

in combination with their fascial and mucous investments of vaginal membrane, act as a very strong but flexible diaphragm of intermediary support between the pelvic organs above and the perineal structures below, and form, by their connections with the pelvic organs, a very flexible, swinging arch, spanning the vaginal opening below (the visceral arch of the pelvis).

Studying the mechanism of pelvic support from its simplest aspect up to its most complex forms, who would venture to say that the positions of the pelvic organs were *purely accidental*? When one takes into consideration the peculiar function of the uterus, and the bearing which deformities and displacements in this region have upon the general health and well-being of woman-kind, is it pos-

sible for one to believe that its position is accidental and of no consequence in the human economy?

Nature employs no "*hit or miss*" methods. The human body, conceded by all to be the most wonderfully constructed and finely adjusted piece of mechanism known, could never have been made such had even one flaw or accident appeared in its original model.

Now considering the special as well as common actions and reactions of the various uterine ligaments,

The anterior and posterior pairs,—as connections between the pelvic organs, as cervical constrictors, and as aids in the formation of the diaphragm of intermediary support between the pelvic organs above and the perineal structures below:

The Fallopian tubes,—canals for the transmission of the ova; with their peritoneal investment forming the *Broad ligaments*, acting as arms of connection and support, and maintaining the obliquity of of the uterus within the pelvis:

The Round Ligaments,—containing a very appreciable amount of highly contractile muscle fibres,—combined with areolar and elastic tissue, and exhibiting their *peculiar or special action* in the *actively functioning uterus*, when *relaxing*, they permit the organ to descend in the pelvis, and, *contracting*, draw it up agains

Now in conclusion, considering the mechanically united and inter-dependent actions of all the intrinsic as well as extrin-

sic factors in uterine support, and recognizing the peculiar and distinctive actions of the round ligaments,—I desire to register a protest against,—which seems to me,—the most unreasonable delusive, and unscientific procedure ever devised for the undoing of woman-kind,—*that of indiscriminately shortening the round ligaments for the correction of uterine displacements.*

NOTE.—*Increased function*,—as in gestation,—produces a physiological hypertrophy of these ligaments; *loss of action*,—as in displacements,—produces the opposite effect and atrophic changes take place. Hence, the so-called “*stretched-out*” ligaments are “*shortened*,” but WHY?

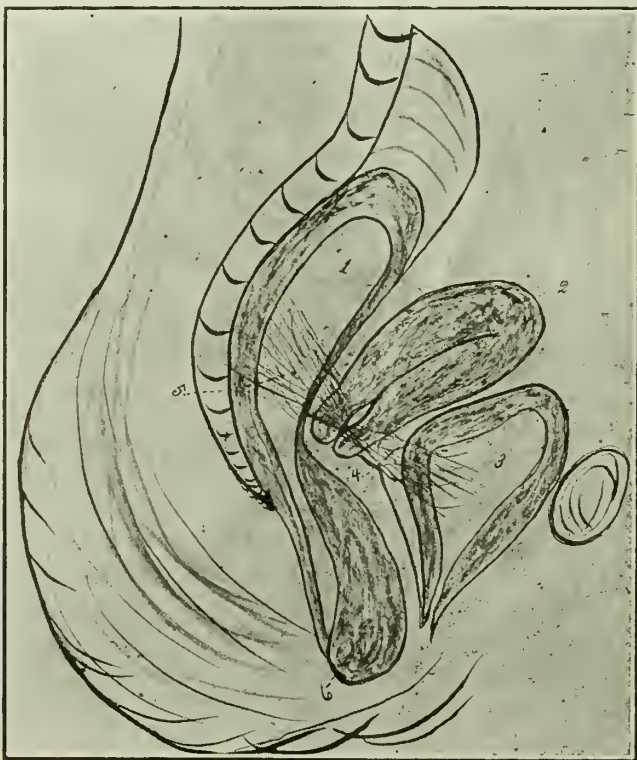


Plate IV—Then, if by another superhuman transition these organs were made to resume their original connections and settings, they would appear like this. Comparing Plates III and IV, observe the direction and poise of the

uterus; the bony curve of the sacrum supporting the rectum, into which curve the cervix is received; and continuing down in an opposite curve the solid column of structures called the perineum.

The peculiar fashion in which these organs are connected (hinge-like), supported (hammock-like), and poised (balloon-like); the manner in which they glide upon each other,—support, and in turn are supported, one by another,—give them

the effect and action of a very flexible, swinging archway; the uterus, poised and swung, with its cervical pole dipping into the sacral curve, forms a remarkably perfect keystone of this,—THE VISCERAL ARCH OF THE PELVIS.

NOTES FROM THE MEDICAL SCHOOL.

S. A. MATTHEWS, Lawrence, Kan.

Parenteral Protein Digestion—Its Relation to Infectious Diseases.*Part II.*

A protein, to exert a poisonous action when digested parenterally, must come from a source other than that of the animal's own body or from its own species. This is well illustrated in tissue transplantation. It is well known that skin grafts taken from animals of different species will not take the one upon the other. If a piece of skin from a guinea pig be placed upon a denuded surface of a rabbit under aseptic conditions, in all probabilities it will remain unaffected for several days; but after a time the tissues of this host will, at least, make an attempt to digest the graft. If, after the first graft has been rejected by this host, a second attempt be made the underlying tissues of this host, will, immediately begin to digest the graft. On the other hand if a piece of skin be taken from one part of the body and placed upon a denuded surface of another part of the body of the same animal the underlying tissues are likely to appropriate the graft at once, and make it immediately functional. From this as well as from many other similar reactions which might be cited we can say; that the animal body, either has no power to digest parenterally its own proteins, and that such a power cannot be developed by its own proteins; or that if it can digest its own proteins no radicle is liberated during the process which can exert any poisonous action. Probably the former hypothesis is the correct one; yet it cannot be denied that the decomposition products of an animal's own proteins may not be poisonous to the animal when administered parenterally. But all the investigations so far seem to indicate that the nearer the protein injected is to the animal's own proteins the less likely it is to sensitize the animal.

But just what relationship has the phenomenon of anaphylaxis or tissue sensi-

zation to infectious diseases?

An *infectious disease* is caused by the growth and multiplication of some form of foreign life upon or within the body. All living organisms are largely made up of protein substances, consequently all bacteria and plasmodia of whatever species provided they can maintain a lodgment in a host and can use the proteins of the host for their own maintenance, building it up into the proteins of their own bodies, which is a foreign protein to the body of the host, constitute infectious agents. Most bacteria which are accredited with pathogenicity build up no specific toxic substances within their bodies neither do they throw out from their bodies any such substances. True it is that certain bacteria do form extracellular toxins which are more or less specific in formations, to the organism (tetanus and diphtheria toxins); yet the greater number of so-called pathogenic organisms form no such substances. The mere fact that certain bacteria or other forms of life can find a suitable habitation in the body of some other form of life (animal) constitute it a pathogenic organism.

Vaughan has shown that when the bacterial cell is killed, ground up and digested in sodium alcoholate, the proteins of the cell is split into two parts one of which is highly poisonous and is physiologically identical to the split products obtained from any other protein. This is the only poisonous substance found in the bacterial cell.

When bacteria find a lodgement in the body they have the power to use the body protein for pabulum; and their presence in the body as foreign proteins stimulate the cells of the host to form a proteolytic ferment which in turn begins to digest the bacteria. It generally takes a number of days (incubation period of the disease) for the cells of the host to react to the stimulus of the foreign protein (bacteria) to form a proteolytic ferment powerful enough to cause the digestion of the infectious agent. In other words the bacteria simply sensitize the tissue upon which

they live, which in turn digests the bacteria so rapidly as to liberate the poisonous radicle, found in all proteins, in sufficient quantities to exert a poisonous action. If the split products of the bacterial cells be injected into an animal poisoning results almost immediately (anaphylaxis)' but if the intact bacterial cells be injected into an animal no poisoning results; but if the second dose of the same bacterial cells be injected some days subsequent to the first, poisonous symptoms soon develop. The first dose simply sensitizes the tissues so that the second dose of bacteria are so quickly digested as to induce protein poisoning. After the body has become sensitized to any species of bacteria they can no longer develop in any numbers in the body, on account of their rapid digestion by the cells of the body, consequently that organism while at one time susceptible to the growth of said bacteria will not again permit their invasion.

(Continued)

MISCELLANEOUS.

Salvarsan Poisoning.

In a case reported by R. T. Woodyatt, Chicago Journal A. M. A., (May 29, 1915) a man aged 45, suffering from luetic aortic aneurysm, received three doses of old salvarsan of 0.3, 0.3 and 0.4 gram respectively within eight days. Forty-eight hours after the last one he felt ill and had a temperature of 99 F., rising to 102 at 8 p. m., with headache and slight nausea. The bowels had not moved. Notwithstanding he was thirsty and drank water freely, the urine was scanty and dark colored and later none was passed, but there was no demonstrable edema or ascites. A diagnosis was made of salvarsan poisoning. It was thought probable that water was accumulating in the liver and kidneys and perhaps also in the brain and other viscera. The treatment adopted was based on the theory of edema proposed by M. H. Fischer, namely that it is due to the accumulation of acids in the tissues (caused in this case by arsenic) and might be neutralized

by alkali, which had been tested experimentally by E. A. Graham in the Sprague Memorial Institute laboratory. The patient was given 200 c.c. of Fischer's hypertonic sodium chlorid with sodium carbonate solution by bowel, and two hours later the dose was repeated; he was allowed no food or drink except lemonade, to which sodium bicarbonate had been added until there was no effervescence. The purpose of this was to provide that no fluid should be taken into the body without containing a suitable concentration of salt (in this case chiefly citrate) to carry it through. Four hours after the second enema the patient had a watery stool and passed 45 c.c. of urine and between three and four hours later 120 c.c. A third enema of 200 c.c. of Fischer's solution was retained. The subsequent progress of the case was favorable and it is reported as one of salvarsan poisoning with urinary suppression and cerebral symptoms serious enough to cause grave concern, in which a sharp turn for the better, followed by ultimate recovery, took place within a few hours after the administration by bowel of an alkaline hypertonic solution (Fischer's solution) with no other therapy.

—————R—————

The Treatment of Burns.

Dr. C. W. McDade, Moorhead, Iowa, writes us details of cases in which he has used the following treatment:

Wet sterile gauze with saturated boric acid solution containing sufficient picric acid to be definitely yellow in color, and apply to all burned areas, later opening blisters.

Later apply a paste of bismouth subnitrate in castor oil, from one drachm to the ounce to sufficient to produce a thick paste. Cover with oiled silk or waxed paper.

This has given good results, seldom sticking to the granulations to any serious degree and seeming to promote the growth of new skin. In deep burns make the paste thick.—The Medical Council.

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Who Pays the Heaviest Toll?

The General Assembly of Pennsylvania, which adjourned a few days ago, appropriated \$4,832,387.00 for public health work in that state for the next two years. Of this amount \$2,975,807 was for tuberculosis work. During the past ten years the death rate from tuberculosis has fallen from first to second place in Pennsylvania. The death rate from typhoid fever has been reduced to one-fourth that of ten years ago.

The development of the department of health and the improved conditions, to which reference has just been made, speaks eloquently for the efficiency of Dr. Samuel S. Dixon, who has been commissioner of Health for the past ten years and who has just been reappointed.

It is estimated from the difference in death rate that during the past ten years 78,916 lives have been saved by the work of the health department. A statement of the appropriations for previous years is not at hand, but assuming that they were equal to the figures quoted for the next two years, the total cost to the state for 78,916 lives has been \$24,161,955, or \$306.15 for each life. What is the economic value of a life? In some states at

least, in suits to recover damages for the loss of life, the courts have estimated the value of a life at \$5,000. If we take this estimate as a basis for our calculations, the health department of Pennsylvania has saved to that commonwealth \$394,580,000, a net gain over cost of \$370,428,045.

The state of Pennsylvania is expending 30 cents per capita per annum for the improvement of the health of its citizens. Of this amount 18 cents per capita is expended in an effort to still further reduce the death rate from tuberculosis.

Kansas has been most liberal in its appropriations for the control of those epidemic and contagious diseases that affect hogs and cattle and horses. That is an economic proposition that the average legislator can appreciate. A good fat steer may sell for a hundred dollars, but a human life has no market value. If there were a market for human lives no citizen of Kansas would sell his wife or his child for \$5,000. He has not, however, learned to appreciate the value, in the saving of human life, of those measures he adopts for the prevention and eradication of disease in his stock. The benefits of quarantine and hygienic regulations in the prevention of human diseases have never been presented to him in the same practical manner as have the benefits of like measures in the prevention of stock disease.

Our last legislature appropriated \$36,500 per annum for the use of our health department for the next two years, but of this amount \$16,700 was appropriated for the use of the food and drug bureau, so that only \$19,800 is for the ordinary purposes of the health department. No special appropriation was made for the furtherance of the work against tuberculosis. The legislature did appropriate \$30,000 for building purposes and \$7,000 for maintenance of the hospital, but this is entirely in the hands of the Board of Control. It cannot be counted as a part of the expenditure of the state in the prevention of disease. While Pennsylvania

expends 30 cents per capita in the improvement of the health conditions of its citizens Kansas expends 1.2 cents per capita for the same purpose. While Pennsylvania appropriates 18 cents per capita for the tuberculosis work of its health department Kansas expends 2 cents per capita in caring for a few of its tuberculous citizens, but nothing for the control or prevention of this disease. Kansas expends 35 cents per capita for the care of its insane, the care of its tuberculous, and the work of its health department, including the food and drugs bureau, while Pennsylvania expends 30 cents per capita for the work of its health department alone.

In the control and prevention of typhoid fever the value of public health service may be most practically demonstrated. The mortality statistics for 1913 just issued from the United States Census Bureau, gives the death rate from typhoid fever in the registered cities of Kansas as 28.3 per 100,000. In the registered cities of Pennsylvania it is given as 20.2 per 100,000. In Kansas City it was 29.4, in Atchison 30.1, in Topeka 30.2, in Parsons 35.7, in Fort Scott 47.6, and in Hutchinson 48.3 per 100,000. In Philadelphia it was 15.7, in Harrisburg 16.1 and in Pittsburg 19.5 per 100,000. In New York City, in which there is a very elaborate health service organization, the death rate from typhoid fever in 1913 is given as 7 per 100,000. For the whole registration district of New York the rate is only 10.3.

The death rate from typhoid fever, in the registered cities of Kansas, is 8 per 100,000 more than in the registered cities of Pennsylvania. Exclusive of the appropriation for the tuberculosis work Pennsylvania expends 12 cents per capita in its public health work. Compare the death rates from typhoid fever alone and the expenditures of each of these states for the same purposes, and a very interesting problems is presented. Kansas spends 1.2 cents per capita and 136 lives as against Pennsylvania's expenditure of

12 cents per capita. Who pays the heaviest toll?

—R—

Whooping Cough.

The New York Health Department found justification for experimentation with vaccines in the treatment of whooping cough in the fairly constant finding by Dr. Anna W. Williams of the city research laboratory, of the Bordet-Gengou bacillus in the sputum of whooping cough patients.

In the summer of 1913 the vaccine treatment was given to a series of cases. The results in this preliminary series and the results in the treatment of a much larger number of cases at the whooping cough clinic, established for the purpose, are reported by Dr. Paul Luttinger (N. Y. Med. Jour., May 22, 1915), of the Research Laboratory of the Department of Health of New York City. In the preliminary series 107 cases were treated, but for various reasons only 45 had complete histories and these alone are included in the report. In sixty per cent of these the whooping had ceased within one month. In his epidemiological investigations, Dr. Luttinger had found that in the Borough of Manhattan the average duration of the whoop had been two months and only 26.7 per cent had terminated within one month. With this as a basis for comparison the vaccine had proven of considerable benefit.

Of 376 cases of pertussis treated at the clinic in 1914 only a part were included in the report. Dr. Luttinger concludes from his study of the cases that "The vaccine treatment seems to have decreased the paroxysmal stage, compared to the drug treatment, by over two weeks. What is more significant, however, than the shortening of the duration, is the prompt amelioration which follows the administration of the vaccine in nearly all cases. The whoop becomes milder and in the last weeks consists often of an occasional paroxysm."

Dr. Luttinger also found that if the

Bordet-Gengou bacillus is the specific etiologic factor in pertussis, the infectiousness of the paroxysmal stage has been overestimated. The bacillus has been more often found in the sputum of the catarrhal stage and rarely later than the first week of the paroxysmal stage. He sees nothing, therefore, to be gained by confining these cases nor in placarding their homes except in the acute cases.

The average duration of the whoop under the vaccine treatment was twenty-five days. Any estimate of the value of the vaccine treatment in pertussis must depend upon the accuracy of the basis of comparison. We have no knowledge of the method by which Dr. Luttinger arrived at his average duration of the whoop in his epidemiological investigation. We are inclined to suspect that many of the reports from which his average was made up, were likely to be inaccurate. Statistics on the duration of the paroxysmal stage of this disease are very scarce. The duration of the disease is usually stated as being from four to six weeks, but we all know that many cases are of much longer duration than six weeks.

In Kerley's late work on the Practice of Pediatrics there is a reference to the experience of Freeman, working with Wright in the St. Mary's Hospital in London, in the use of vaccines in pertussis. 1,140 cases were treated. He compared results in the vaccine treated cases with an equal number of control cases in which a normal salt solution was injected. In Freeman's opinion the cases treated with the vaccine did somewhat better than those given the salt solution.

One is hardly justified in becoming enthusiastic over the results so far reported. Granting that some improvement is shown over drug treatment, it is still too indefinite to offer much encouragement and falls far below our expectations as a specific remedy in this obstinate disease.

Alum in Baking Powders.

The doctor, in an advisory capacity, is frequently called upon for information in regard to many subjects and particularly in regard to the injurious nature of certain foods. So much has been written about adulterations, substitutions, misbranding, etc., that the people are easily alarmed. Some manufacturers have taken advantage of the situation for their own benefit and their competitors injury. Some years ago a great amount of information on the injurious effects of alum in baking powders was supplied by the newspapers. In fact, so general was the alarm that many people were afraid to use baking powder at all. As in a great many other circumstances, however, the theories upon which the general alarm was based had no foundation-in fact. The unnecessary alarm and the unnecessary injury to the baking powder interests could have been avoided by ascertaining the facts before the theories were evolved. We quote the following from the Journal of the Indiana Medical Association:

"The question whether alum used in this way is injurious has been settled by the investigations of the Referee Board of Scientific Experts appointed by President Roosevelt, and its decision may be considered as coming from the court of highest authority. The investigation of this board covered a period of several years and was the most extensive single investigation ever conducted as to the healthfulness of alum baking bowders. The distinguished character and personnel of the board itself lends additional weight to its findings. The board consisted of the following men:

"Dr. Ira Remsen, president of Johns Hopkins University.

"Dr. Russell H. Chittenden, professor of physiological chemistry, Yale University, and director of the Sheffield Scientific School.

"Dr. John H. Long, professor of chemistry in the Northwestern University Medical School.

"Dr. Alonzo E. Taylor, professor of physiological chemistry, University of Pennsylvania.

"Dr. Theobald Smith, professor of comparative pathology, Harvard University.

"The board made the following findings:

"Aluminum compounds when used in the form of baking powders in foods have not been found to affect injuriously the nutritive value of such foods.

"Aluminum compounds when added to foods in the form of baking powders, in small quantities, have not been found to contribute any poisonous or other deleterious effect which may render the said food injurious to health. The same holds true for the amount of aluminum which may be included in the ordinary consumption of aluminum baking powders furnishing up to 150 mg. (2.31 grains) of aluminum daily.

"Aluminum compounds when added to foods in the form of baking powders, in large quantities up to 200 mg. (3.09 grains) or more per day, may provoke mild catharsis.

"Very large quantities of aluminum taken with foods in the form of baking powders usually provoke catharsis. This action of aluminum baking powders is due to the sodium sulphate which results from the reaction.

"The aluminum itself has not been found to exert any deleterious action injurious to health, beyond the production of occasional colic when very large amounts have been ingested.

"When aluminum compounds are mixed or packed with a food the quality or strength of said food has not been found to be thereby reduced, lowered or injuriously affected."

"In short, the board concludes that alum baking powders are no more harmful than any other baking powders, but that it is wise to be moderate in the use of foods that are leavened with baking powder.

"In Dr. Taylor's conclusions, a differ-

ent aspect of the baking-powder question is brought out. It is shown that the product of all forms of baking powders is laxative, and the suggestion is made that the laxative effects of the continuous use of breads made with baking powder may be injurious. The objection applies to the cream of tartar baking powder which leaves a residue of Rochelle salts to the phosphate baking powders which leave the phosphate of sodium and to the alum baking powders which also leave the sodium sulphate. Dr. Taylor says: 'Apparently, therefore, at present at least, the use of baking powder is associated with the introduction into the alimentary tract of a certain amount of saline cathartic, the salt differing with the use of a particular type of baking powder.' In connection with this objection, the amount of soluble residue left by the decomposition of the baking powder becomes of importance.

"Here, again, the pertinence of the objection depends on the quantity likely to be eaten. In no case is it likely that a person would consume bread or biscuits enough to get an appreciable effect on the bowels from the laxative produced.

"The criticisms with reference to the action of baking powders indicate a tendency to magnify quite incidental matters whenever they seem to favor the interest of one or other manufacturer. Thus the tartrate was at one time highly regarded because it was a product which was destroyed in the system, leaving a natural constituent of the body, that is, potassium carbonate. More recently it has been discovered that the tartrates are only partially metabolized in the system, removing the supposed advantage of the tartrate powders. On the other hand, there is a disposition to emphasize experiments tending to show the powder of tartrates to affect the kidneys injuriously, although there is no evidence that such an injurious action can occur from the small quantity present in baking powders. While the objections to alum are unjustified, the physician will

do well to inquire carefully into the probability of any alleged injury occurring from other forms of baking powder."

————— R —————

The Narcotic Law.

There is still considerable confusion in regard to the provisions of the Harrison Law. The Commissioner of Internal Revenue has made a number of interpretations and regulations that are of particular interest to the medical profession. We quote below, from the synopsis of rulings issued by the Commissioner under date of March 9, 1915, those items which seem to be of particular interest to physicians.

Administration, external and internal.—Liniments, ointments, or other preparations containing drugs not specifically exempt, used for oral, nasal, aural, ocular, rectal, urethral, or vaginal administration are not in such cases used externally and are therefore not exempt from the provisions of this law.

Attendance (personal), definition of.—A physician, dentist, or veterinarian must actually be absent from his office and in personal attendance upon a patient in order to come within the exemption of section 2, paragraph A, of this law.

Analysis, samples of.—While no special provision is made in the act for the purchase by chemical laboratories of narcotic drugs to be used as tests reagents in analytical work, or for the forwarding by physicians of samples for analysis, the the purpose or disposal of such drugs for the purposes named would not be in violation of the act, provided the same are purchased or received by regularly established chemical or analytical laboratories, and the requirements as to registration and keeping of records, etc., are fully complied with. In either such case registration and payment of special tax will be necessary (sec. 1 of act), and the prescribed order blanks must be used as to all purchase of such drugs, as required by section 2 of the act.

Where such drugs are purchased for analytical work there should be kept, in

addition to the duplicate order blanks, a record showing when such drugs were received, the kind and quantity received, and from whom received. This record should also show as to each kind the quantity used for analytical work and the quantity remaining unused at the close of each month.

Samples forwarded by physicians for analysis must be entered in their records (art. 10, Regulations 35), as where like drugs are dispensed or distributed other than directly to patients. Laboratories receiving such samples must also enter the same on their records, as in the case of purchases above referred to.

Branches, registration of.—Each separate branch of any firm, partnership or corporation dispensing or distributing any of the drugs coming within the scope of this law will be required to register and pay the special tax. The name of the firm, partnership, or corporation should be indicated on the application for registry with the name of the manager in charge of the branch immediately beneath.

Charity organizations.—Not supported solely by the state, county, or municipality must register and pay the special tax and keep a record of drugs dispensed or distributed.

City hospitals, status of.—(See Exemptions from registration.)

Consumers obtaining drugs.—A consumer, as such, will not be permitted to register under this law and can only obtain a supply of such drugs through a duly registered physician, dentist or veterinarian.

Drugs dispensed, record of.—A physician or dentist who administers minute quantities of drugs coming within the scope of this law in his office may keep a record of the date when a stock solution is made and the date when such stock solution is exhausted without keeping a record of the name and address of each patient to whom such drugs are administered. This plan will be allowed, however, only in cases of those physicians and dentists who use minute quantities of these drugs, such as

oculists, aurists, and other specialists; but where a physician engaged in a general practice otherwise administers such drugs it will be necessary for him to keep a record of the name and address of the patient, of all drugs dispensed, distributed, or administered in his office, and of such drugs left with a patient to be taken in his absence. Only such drugs as are personally administered by a physician to a patient when away from his office are exempt from record.

Drugs delivered, receipts for.—A retail dealer in filling a prescription or order from calling for any of the drugs coming within the scope of this law is not required to demand a receipt therefor.

Druggists engaged in more than one business.—A retailer having more than one place of business, or, if in any case, the retailer is engaged in more than one profession or business where any of the drugs coming within the scope of this law are made, stored, or dispensed should make application for registration in each such case.

Exemption from registration.—Under the act government, state, county, and municipal officers, lawfully engaged in purchasing drugs, etc., specified in the act for the various departments of the army and navy, the Public Health Service, and for government, state, territorial, district, county, municipal, or insular hospitals or prisons are held to be exempt under section 1 and paragraph (d) of section 2 from the provisions of the act relating to registry and special tax to purchase and use of such drugs and to the keeping of records of the same. Any such officers, however, engaged in private practice must register, pay special tax and keep the records, and comply with all the requirements of the law and regulations.

Name in Full—Meaning.—A physician may sign prescriptions calling for drugs coming within the scope of this law the same as he would sign a check or legal document, *i. e.*, J. H. Smith, John H. Smith, or John Henry Smith. ;

Nurses, status of.—Not allowed to reg-

ister and can only have narcotic drugs in their possession under direction of registered physician. Can only obtain supplies of such drugs upon registered physician's prescription and only when nursing patient of such physician.

Ointment, liniments, etc., for external use only containing more than the quantity of drugs specifically exempt under section 6 can be dispensed or distributed without complying with its provisions, only when such ointments, liniments, and other preparations contain ingredients rendering them unfit for internal administration—in other words, they must be denatured.

Opium, definition of.—In making calculations upon the amount of opium present in any given preparation, this office will take the United States Pharmacopoeia standard for *opii pulvis* (powdered opium) containing 12 per cent to 12.5 per cent of morphine.

Order forms not to be used as prescription blanks.—Original and duplicate order forms are only to be used for obtaining a supply of the drugs and preparations covered by this law and can, under no circumstances, be used as a prescription.

Paregoric, status of.—Camphorated tincture of opium, prepared according to the United States Pharmacopoeia standard, contains not quite two grains of powdered opium to the fluid ounce and is, therefore, exempt from the provisions of this law.

Partnerships of physicians.—Where two or more physicians, dentists, or veterinary surgeons are in partnership, doing business under a firm name, it is necessary for the firm to be registered, the firm registry number to be indicated in ordering any of the drugs for use in the office practice of the members of the firm, each individual physician, dentist, or veterinary surgeon in such partnership should register and pay the special tax under his own name, if also engaged in private practice.

Physicians, dentists, and veterinarians practicing in more than one district.—If

maintaining an office in more than one internal-revenue district must register in each district. If not maintaining more than one office registration in one district permits him to practice in any other district with but one registration.

Prescription blanks.—A physician, dentist, or veterinary surgeon can make use of any prescription blank, provided the same is properly dated and signed and has indicated thereon the physician's address, his registry number, and the name and address of the person for whom such prescription is written. The government does not furnish a form upon which prescriptions may be written and the special order form can not be used for this purpose.

Prescriptions, partial filling of.—Original prescriptions only can be lawfully filled by druggists, and the partial filling of such prescriptions, from time to time, where large quantities of drugs have been prescribed, will, under no circumstances, be permitted.

Proprietary preparations with an exempted amount of narcotic drug.—It will not be necessary for a registered physician, in order to secure patent or proprietary medicines containing less than amounts named in section 6 of this law, to furnish with such order a government blank.

Refilling prescriptions.—Only original prescriptions can be filled by druggists and apothecaries and can not be refilled without violating this law.

Registration, who eligible for.—The following persons legitimately engaged in the practice of their profession and dealers allowed by the state laws to handle narcotic drugs are eligible to registry under this law: Persons engaged in the practice of medicine and surgery, persons engaged in the practice of dentistry, persons engaged in the practice of veterinary medicine and surgery, persons engaged in the importation and sale of drugs, persons engaged in the manufacture and sale of drugs at wholesale, persons engaged in the manufacture and sale of drugs at retail.

An osteopath, therefore, or other person heretofore administering these drugs, if not classed as a physician in the state in which he resides, would not be permitted to register under this law.

Special-tax stamps.—Must be posted in a conspicuous place by every person registering under this law.

Under date of April 26, 1915, the following additional rulings were issued from the Commissioner's office:

"Synthetic Substitutes—In exempting from its provisions certain preparations and remedies the Act (sec. 6) expressly excludes from such exemptions "preparations which contain cocaine or any of its salts or alpha or beta eucaine or any of their salts or any synthetic substitute for them." To effect the obvious purpose of this provision of the Act the words "synthetic substitutes" are held to apply to any artificial substance or preparations which is or may be submitted for cocaine alpha or beta eucaine or any of their salts as ordinarily prescribed or used and not necessarily to a purely synthetic substitute, which, chemically, is identically the same as the drug for which it may be so substituted."

"Further, both the title and Sec. 1 of this law include, opium or cocoa leaves or any compound, manufacture salt, derivative or preparation thereof' and under a liberal interpretation of the word 'derivative' from a chemical point of view, the several cocaine substitutes would also be clearly included."

"Manufacturers of, dealers in, and physicians prescribing any such substitutes, as above defined, should therefore register and otherwise conform to the requirements of this law and the regulations issued thereunder."

Under date of May 11, 1915, the following additional rulings were issued by the Commissioner:

"The Act of December 17, 1914, provides that a physician, dentist, or veterinary surgeon, registered under the provisions of the law may dispense or prescribe any of the narcotic drugs coming

within its scope to patients upon whom he shall 'personally attend' and 'in the course of his professional practice only.'

"This office construes the words 'dispensed, distributed, or prescribed' used in the act as synonymous, and that a physician, dentist or veterinary surgeon 'dispenses' within the meaning of the law when he writes a prescription calling for any of the narcotic drugs to be filled by a registered dealer.

"While the law does not limit or state the quantity of any of the narcotic drugs that may be so dispensed or prescribed at one time, it does provide that it shall be unlawful to obtain by means of order forms, any of the aforesaid drugs for any purpose other than the use, sale or distribution thereof, in the 'conduct of lawful business in said drugs, or in the legitimate practice of his profession.' Further that all preparations and remedies containing narcotic drugs coming within the scope of this act, are 'sold, distributed, given away, dispensed, or possessed as medicines and not for the purpose of evading the intentions and provisions of this act' and it is further provided that it shall be unlawful for any person not registered to have in his possession or under his control any of the drugs, preparations, or remedies 'which have not been prescribed in good faith, by a physician, dentist, or veterinary surgeon, registered under the act.' Therefore, when a physician, dentist, or veterinary prescribes any of the aforesaid drugs in a quantity more than is apparently necessary to meet the immediate needs of a patient in the ordinary case, or where it is for the treatment of an addict, or habitue to affect a cure, or for a patient suffering from an incurable or chronic disease, such physician, dentist, or veterinary surgeon should indicate on the prescription the purpose for which the unusual quantity of the drug so subscribed is to be used. In cases of treatments of addicts, these prescriptions should show the good faith of the physician, in the legitimate practice of his profession by de-

creasing dosage or reduction of the quantity prescribed from time to time, while on the other hand in cases of chronic or incurable diseases, such prescriptions might show an ascending dosage or increased quantity. Registered dealers filling such prescriptions should assure themselves that the drugs are prescribed in good faith for the purpose indicated thereon, and if there is reason to suspect that the prescriptions are written for the purpose of evading the intention of the law, such dealers should refuse to fill same."

—————R—————

Summer Sessions

The University of Kansas School of Medicine, Department of Anatomy, is offering the following courses at Lawrence during the Summer Session of 1915, June 10 to July 22, which should be of interest to physicians desiring to review or specialize:

1 (—6)—Topographical Anatomy. Five hours credit in the School of Medicine. Lectures daily, 8 a. m. Laboratory daily, 9 a. m.—throughout the day. A laboratory course in human anatomy including dissections, study of models, preparations, cross sections. Special emphasis will be laid upon the practical phases of Anatomy. This course is especially designed for physicians who desire to review Anatomy. Laboratory fees, ten dollars. Course not given unless six register for it. Professor Sundwall.

II (—10)—Advanced Work in Anatomy. Hours, credits and fees to be arranged. Opportunities will be offered advanced students and graduates to carry on special dissections in which they may be interested. Course not given unless six register for it. Professor Sundwall.

Course I is designed for those who wish to make a complete review of Anatomy. Special emphasis will be laid on the practical side.

Course II, is especially designed for those who wish to specialize. In taking up a specialty, thorough work of the organs and parts concerned, is of fundamental importance. This course ought to appeal

to physicians contemplating going away for special training, as the structures can be as readily worked out here as elsewhere, thus saving time and expense.

Physicians contemplating registering for these courses will confer a favor by notifying the department so that the best facilities can be arranged before hand. For further information address

Dept. of Anatomy, University of Kansas, Lawrence.

—————R—————

The following is an extract from a letter from Dr. George W. Crile of Cleveland:

"When I was in Belgium I received first-hand information from a number of Belgian physicians concerning their plight. They are indeed in dire need and there seems to be no way by which this need can be overcome until their land is restored to them again. The free masonry of the medical profession so binds all medical men together that it seems to me that no appeal to doctors for the aid of their associates in Belgium can be in vain. We should all realize also that no single appeal can satisfy what is going to be a long continued need, that we must give now, later again, and still later and so answer repeated appeals until later conditions may restore to the Belgians the wherewithal to aid themselves."

Contributions for the relief of the Belgian physicians should be sent to F. F. Simpson, M.D., Treasurer, 7048 Jenkins Arcade Bldg., Pittsburg, Pa.

The Corral

By O. P. Davis

"If Thoughts Run Wild, Put Them in Bounds."

I am moved to set down in these columns some observations and reflections concerning the recent meeting of the State Society at Wyandotte. I prefer to call it "Wyandotte", because the name is more distinctive and individualistic, and is the town's real historic designation. The name "Kansas City, Kansas"

is a modern appellation, adopted obviously at the suggestion of the big city across the line in furtherance of its scheme to make a show of aggregate greatness accrue to its own aggrandizement. And Wyandotte's acquiescence is something she should be ashamed of.

* * *

The Wyandotte Indians used to inhabit these woods and hills, and a fascinating folk-lore of this splendid tribe is available to anyone interested. Most of these pioneer inhabitants are now in their happy hunting grounds. I did not see any of them on the streets. But I visited an ancient graveyard right in the heart of the business section, where many of these good Indians and their descendants are sleeping beneath crumbling stones. It is an interesting spot, but its story does not belong here.

* * *

Thousands upon thousands of cattle and hogs and sheep and goats are butchered in the environs of this town every day. There is also much surgery daily done here. Now, please do not misunderstand me! The two arts mentioned, while reciprocally suggestive, are admittedly very different, though both are sanguinary. I can testify that no better, more high-minded and more skilful physicians and surgeons can be found in our state, or even in Missouri, than these fellows who compose the Wyandotte County Medical Society. They are also warm-hearted and generous hosts, and whatever their dissensions may be, and I presume such may sometimes occur, they do not let them interfere with their effective team-work on any important occasion.

* * *

These Wyandotte fellows said that from the looks of us we were hungry; and that they were going to give us one square meal. So they levied a special assessment on themselves of about twenty dollars per capita, and proceeded to set the table. They bought five hundred turkeys, figuring one turkey to each

guest, and around this *piece de resistance* they set out a mess of vittals that was bewildering to contemplate. And in addition to the turkey, they gave us ham, real country ham. And I almost forgot, they also had chicken. They drove the chickens on, that we might see them for ourselves before they were sacrificed. These chickens had their feathers on—some—but they were all dusty with their long drive. Yet they had good drumsticks and wishbones, so those who sat at the front tables said. I saw May and Goddard looking them over.

* * *

Some few of the members visited Kansas City, Missouri, at one time or another during the meeting. It could hardly be expected that an opportunity to visit this flourishing village, so near by, would be entirely neglected. Some went over there only after dark. They say the lights are very bright over there at night, and one of the fellows told me that it was really surprising how many electric signs there were over there on the buildings, some of them actually advertising BEER. McVey told me that there is a sign on a building over there where two streets join that tells about a kind of a Beer that Builds You Up! This is of medical interest.

* * *

Speaking of signs one of the members told me about seeing a sign, as he and two other fellows were walking aimlessly around over there, the blazing letters of which spelled "The Blue Goose." Being interested in poultry they went in. But to their surprise they found that the birds on display were not of the quack-quack species but just chickens again. The exhibition, I am informed, consisted chiefly in the vociferous cachinnations of these feminine fowls, together with such deportations as commonly accompany the cackling on the laying of an egg.

* * *

The president, Doctor Sawhill, wielded the gavel with dignity and skill. He kept down riots and allowed no one to go away

dissatisfied. He made a good officer,—*suaviter in modo, fortiter in re*. I cannot say as much for the guy who swung the mallet for the Kansas City meting of four years ago.

* * *

That meeting four years ago was just about a replica of the one this year. The program this year was no better and no worse. If there was any difference it was just about the same. There was just about the same attendance. The meeting was held exactly in the same place. The exhibits were almost exactly the same,—by the same firms. The banquet was down stairs in the same rooms, served by the same wives and daughters of the Masons. There was a surfeit of provender, both times. The Wyandotte fellows are certainly wonderful providers. The only difference was in the intellectual dessert at the end of the meals. Four years ago, you will remember, we had political dissertations at the tail of the feast. Near-Governor Hodges, then looked upon by some as our Moses, Hon. C. C. Goddard, legislative psychologist and alienist, and others of similar proclivities and weaknesses, handed out the post-prandial salad. This year, as before related, we were more agreeably regaled by female chantclers from some sequestered roost across the line. But neither meeting is here being disparaged by this writer. Attention is simply being called to the very slight variation in the procedure from year to year. I could hardly realize that there were four years between the meetings. The 49th seemed simply a continuation, or rather an encore, of the 45th.

Being in reminiscent mood, my mind reverts to the Kansas City meeting of eight years ago. This was held in the Union Club rooms, at Seventh and Minnesota,—that is, most of the papers were read there. But it was a very widely diffused meeting. The first evening was spent at Rosedale. This suburb, while situated in Kansas, is best reached by a circuitous route extending through back streets

and over devious trails belonging to the Missouri City. The Kansas University had then, as now, her medical school over there, on top of a hill steeper than the main hill at Lawrence. Somebody gave her a bluff in Rosedale, I understand. Well, on this occasion, the visiting doctors were served dainty sandwiches and shown magic lantern pictures of microbes, cancer germs, etc. Some of us had never saw any of them things before. I don't know why the two succeeding Kansas City meetings have never been invited to Rosedale.

The banquet the following night was pulled off at the Densmore Hotel, a hostelry situated on the East Side of Kansas City, Missouri. It was a sumptuous affair, and after we had been filled to repletion with food, we were set upon by an endless list of lawyers, preachers, school teachers and politicians. Some of our own members were even made to contribute to the torture. That meeting was certainly an anomaly. It was a Kansas meeting in name only. The headquarters were at the old Midland Hotel there being no hotel at that time in the Kansas metropolis. The Grund Hotel, which now adorns Wyandotte, is a nice little family hotel, but when its regular boarders are all in their cells only a relatively small number of transients can be housed. This year the great majority of the members had to go over to the Baltimore for lodging.

I have mentioned about the striking similarity of all these annual functions. I pause to inquire why somebody doesn't invent or devise something different by way of program for our annual meetings, and something by way of entertainment, also. It would be refreshing to get away from the traditional cut-and-dried list of stereotyped subjects. Our editor once proposed that the meeting be made a sort of chautauqua, and that most of the time be given to instruction courses, conducted by men of distinction brought in from the large schools, or by men admittedly qualified and acceptable, from

whatever source. But the idea, for some reason, couldn't get across. It appeals to me as a scheme worthy of serious consideration.

The entertainment proposition needs amendment, too. The elaborate, expensive banquet should be done away with. It is really an obsolete method of social entertainment. Moreover, it is not only extravagant as a time-consumer, but it is a burdensome load for any but the largest societies to get under. It practically prevents the annual meeting from going anywhere else than to the three or four large towns of the state. Let's either cut out the elaborate banquet, or else let the members pay for their plates—after next year. Don't get the idea that Topeka would try to escape from the traditional obligations of the host at that time.

* * *

Ah, how fast these meetings come and go! How they punctuate the weary tedium of our professional life and give us brief pause to look again into one another's eyes and to touch one another's hands! How they serve as little oases in the dry and dusty march, where we may tarry a little while out of the heat and rest with friends under the shade of the trees!

Let us lay away our ribbon badges. Let us treasure them for the memories they will bring us in the coming years. Let us look forward with pleasant anticipation to these recurring gatherings; bear with their insufficiencies, test their value, and help to make them better by bringing to them the best that is in us of good cheer and good will.

—————B—————

Locating Her Symptoms.

Little Amelia was not feeling well and the doctor was called in.

"Can you describe your symptoms?" he asked.

"I ain't got no symptoms," she replied. "I've got a headache in my stomach."—Child Betterment.

SOCIETY NOTES.

Proceedings of the Forty-Ninth Annual Meeting of the Kansas Medical Society, Held in Kansas City, May 5-6, 1915.

MEETING OF THE COUNCIL.

The Council met at the Grund Hotel, at 7:30 p. m., May 4, 1915, in pursuance of the notice of the meeting as it appeared on the program. Those present were: Drs. Sawtell, Goddard, Reynolds, Walker, Caffey, Davis, Mason, Munn and Huffman. Dr. Sawhill not being present at the time the Council convened, Dr. C. C. Goddard was elected president pro tem. The minutes of the last meeting were read and approved, with the exception as to the amendment. This was corrected to read as follows:

Resolved, That Section 2 of Article XI of the Constitution of the Kansas Medical Society be stricken out and the following substituted therefor:

Article XI, Section 2. The sum accruing from one dollar per capita of the annual membership dues of the society, together with any additional funds specially appropriated, and together with any unexpended residue of previous appropriations for the same purpose shall be set apart and constitute a Medical Defense Fund, and shall be subject to expenditure on vouchers signed by the chairman of the Defense Board and countersigned by the President of the Society.

Motion was made that the program be changed in this respect, that the House of Delegates meet at 4 o'clock p. m., instead of 9 p. m.

On motion a Committee on Membership was created, and the president instructed to appoint the committee. The following committee was appointed: Chas. S. Huffman, J. E. Sawtell and W. E. McVey. This committee was instructed by a unanimous vote of the Council to adopt the best method that they deemed feasible to increase and promote the membership of the Kansas Medical Society, also instructed to

report at the next meeting of the Council.

• CHAS. S. HUFFMAN, Secretary.

May 5, 1915.

At the hour designated the regular session of the Kansas Medical Society convened to listen to the address of the president. His address was followed by the reading and discussion of the scientific papers on the program.

MEETING OF THE HOUSE OF DELEGATES.

The House of Delegates convened at 4 p. m., May 5, 1915. Roll was called and a quorum was found to be present. President W. F. Sawhill in the chair. On motion the reading of the minutes of the last meeting of the House of Delegates was dispensed with. The president appointed Drs. C. W. Reynolds, of Holton, and R. J. Morton, of Green, as an Auditing Committee.

Secretary's Report.

To the House of Delegates:

In making my report this year I am not going to follow the usual lines, and perhaps something that I will say, may be considered to be of a critical nature.

While our State Society is up to the standard of the last few years, we have not made the gains that should have been made, and while I may seem critical, it is not intended as a personal criticism, but what I want to criticise is the system and not the people who are now controlling the policy of the Society, and I think that as much criticism should be directed at your secretary, as to any of the officers of the State Society. While I have worked hard and conscientiously, the result, in increase in membership, is not what it should be.

First, I will take up the matter of Councillors. All of our Councillors are representative men of our profession, all actively engaged in practice. They have worked hard to keep up the interest in membership, but they cannot be expected to give their time to the work. Many of them have given much time to the work, and have gone over their districts and

tried to create interest in the different societies. Now how are we going to improve on the present methods? Several plans have suggested themselves; one is to employ a man in the field all the time. With this plan the question naturally arises, how will he be paid for his work? I think some plan should be devised that his remuneration should be based upon the work accomplished, that is, he should receive a certain amount for each new member brought into the Society, and a percentage of the total amount of yearly dues paid by the old membership. This would be an incentive for him to work, and so direct his work that it would bring in new blood. This is along the line suggested by the American Medical Association, which I incorporate in this report. The following is extracted from a letter received from that Association:

"The American Medical Association details certain men who have developed special ability in the work to make a thorough canvass of the physicians of the state. These men act under the advice of the officers of the state organizations, the president, secretary and Councillors, and co-operate with the president and secretary of each of the component associations in whose district they work. This co-operation is essential to the successful and satisfactory conducting of the plan.

"Assignments of territory are usually made from this office. As a rule, we send an organizer into a Councillor District, and if it is at all feasible, have him go directly to the county in which the Councillor resides, call upon the Councillor and also the Secretary of the County Society, and ask their co-operation. Sometimes this is not practicable. When this is the case, the organizer reports to the first County Medical Society as he enters the district, and enlists the co-operation of the officers of that body. The organizer is provided with a list of physicians of the county, compiled at this office. He also knows the record at this office with regard to the membership of individuals in the state organization and their relation to

the American Medical Association, either as fellows or as subscribers to the Journal. It is expected that the organizer will check the non-members with the assistance of the Secretary of the County Medical Society and that he will solicit applications for membership only from those who are not objected to by the officers of the county and state organizations. He does not solicit membership from other physicians unless it be at the instance of some member of the County Medical Society.

"In addition to this work, he is to increase the Fellowship in the American Medical Association in the county wherever possible, and is privileged to take subscriptions to the Journal from residents in that district.

"For this work, the American Medical Association pays the organizer a modest traveling allowance and a nominal salary and, in addition, he receives a commission for new subscribers to the Journal. The State Medical Association co-operating in this way, pays to the organizer through this office the sum of \$1.00 for each member of the State Association, who is elected to membership on an application taken by the organizer and placed by him in the hands of the Secretary of the local Society. It is to be understood that this amount is to be paid when the member qualifies in his component society."

Second, I wish to take up the Medical Defense. Much criticism has been directed toward that feature of the work. We all know that the principle involved in this is correct and right, but whether we have adopted the best plan for the successful working of this amendment to our constitution is open for discussion. Some have criticised the employment of an attorney at a stated salary. Those who are opposed to this plan think the expense is too much for the benefits derived, and claim that we would have better success if we employed a local attorney to handle the alleged malpractice suits. The advocates of this plan think we should have some central authority that is familiar

with this class of work, to direct the management of said cases. Still others claim that we do not gain anything by our Medical Defense program, and that we would be just as well off if we protected ourselves in some insurance company carrying this class of risks. Our membership has not fallen off, as the report which follows will show. While I do not think it has made the gain in membership that the advocates claimed for this plan, I do know from personal letters received, that a number have joined because of this protective feature. I also know that suits brought against members of the profession in the majority of instances have been well conducted and favorable verdicts have been rendered. I think the moral effect has been good and know that a number of cases would have been brought, but for the knowledge that the organized profession of the state was back of every physician who was charged with malpractice. We adopted the amendment to our constitution providing for the medical defense in May, 1911. In that year our paid-up membership was eleven hundred twenty-five; in 1912 it was twelve hundred forty-four; in 1913 it was eleven hundred; in 1914 it was twelve hundred, and this year up to date it is twelve hundred. This matter I leave to the House of Delegates for their discussion and consideration.

Third, I wish to speak of the legislation that we attempted to place on the Statute Book. As you know, at the last meeting of the House of Delegates, we adopted a resolution, calling on the governor to appoint a commission to draft a medical practice act that would be acceptable to the profession, and one that could be enacted into a law. The commission appointed was made up of two doctors, two lawyers and one business man, and in my judgment was a most excellent appointment. This commission worked diligently and presented a draft of their proposed measure to the Council for their consideration. The Council approved the bill and it was introduced in the Senate and House of Representatives. This measure at-

tracted considerable attention, not only at home, but over the United States. A letter was received from the committee on Public Health and Legislation of the American Medical Association, commenting favorably on the bill, and they said it was along lines that they had under consideration. The bill passed the Senate, but did not receive much consideration in the House, but I will not enter into the cause that led to its defeat. Another question I will leave with you. Do we want to attempt further legislation? Every member of the profession in this state knows we need it.

The three subjects outlined above, give what I think are the most important items for our consideration.

The following is the financial statement for the year ending May 1, 1915:

Total balance on hand May 6, 1914, divided as follows:

Medical Defense	\$1,183.10
General Fund	3,228.08
Total	\$4,411.18

Amount received from all sources for the year ending May 6, 1915:

Dr. J. W. May, Journal	
acct.	\$120.58
Int. on Harper loan.....	110.00
Dues from members	3,283.00
Total amount received.....	\$3,513.58

Total\$7,924.76

Amount paid out for year ending May 6, 1915:

Medical Defense	\$1,154.95
General Fund	2,116.58
Total	\$3,271.53
Balance on hand May 6, 1915.....	4,653.23

Statement as to how the two funds now stand:

Medical Defense	\$1,200.00
General Fund	3,453.23
Total	\$4,653.23

Respectfully Submitted,
CHAS. S. HUFFMAN, Secretary.

Treasurer's Report.

Mr. President and Fellows of the Kansas Medical Society:

I have the honor of submitting to you the following report:

Cash on hand May 1st, 1914.....	\$4,411.18
Cash taken in to May 1st, 1915.....	3,513.58
Total	\$7,924.76

EXPENDITURES.

Cash paid out of General Fund to May 1st, 1915	\$2,116.58
Cash paid out of Medical Defense Fund	1,154.95
Total expenditure	\$3,271.53
Cash on hand subject to check.....	\$2,653.23
Harper loan	2,000.00

Total amount of credit of the Soc.....\$4,653.23

Respectfully Submitted,
L. H. MUNN, Treasurer.

Editor's Report.

I have the honor to submit herewith my report as editor of the Journal, for the year ending April 30, 1915:

Receipts to May -, 1915.....\$2,265.77
Expense to May 1, 1915.... 2,249.73

Balance

total amount expended.....	\$2,249.73
For Com. P. P. L. Printing, postage, etc.	244.92

Cost of Journal.....\$2,004.81

Average

Gross value adv. May number, 1914	\$154.70, per page \$8.36
Gross value adv. Apr. number, 1915	191.62, per page 9.34
Net value adv. Apr. number, 1915.....	\$173.17

Respectfully Submitted,
W. E. McVEY, Editor.

Report of the Chairman of the Committee on Medical Defense.

To the House of Delegates of the Kansas Medical Society:

Your Medical Defense Board begs to submit the following report:

During the year the following cases have been disposed of:

J. N. Ashley vs. G. M. Listen & W. L. Small, Douglas Co., hung jury, seven to five in favor of defendants, later plaintiff dismissed the case.

Quick vs. Young & Brock, Cowley Co., judgment for defendant on demurrer.

Wooley vs. Nevitt, Allen Co., verdict for defendant.

Kruger vs. Lindley, Osborne Co., verdict for defendant for \$90.00 for services.

Bridges vs. Edwards, Neosho Co., judgment for defendant for costs.

Stillman vs. Jones, Douglas Co., judgment for defendant on demurrer.

Norton vs. Weaver, Cloud Co., judgment for defendant on demurrer.

George vs. Shannon, Brown Co., su-

preme court affirmation of judgment against defendant. Note—This case was tried in the lower court by attorneys selected by the defendant and approved by the Defense Board, as was the practice at that time. The losing of this suit draws on the Defense Fund for the court costs and other expenses, in addition to what has already been paid, to the amount of \$202.55. A voucher was issued by the Board, or rather was authorized, but the same was held up by the Secretary and President of the Society for some reason. Our constitution is, however, very plain as to our liability for such expenses.

There are now pending the following cases:

Brooks vs. Davis, Wyandotte Co., pending for more than a year, and the defendant apparently not very appreciative of the Board's willingness to co-operate with his own local lawyers.

Halliday vs. Wortman, et al, Linn Co., two cases, one by the husband and one by his wife. Set for trial at April term, but court dismissed the jury, and the case was continued on that account.

Lloyd vs. Young & Brock, Cowley Co., due to be tried soon.

McRoberts vs. Clopper, Wyandotte Co., pending for a long time.

Woodruff vs. Pigman & McDonald, Cloud Co., two cases, by father and daughter.

Kurth vs. Axtell, Harvey Co., not yet an active case with this Board, perhaps on account of the defendant having other indemnity insurance.

Heck vs. Mowry & Neptune, Saline Co., pending since last November.

Various suits have been threatened against members, that have not yet materialized. Our attorney has given counsel in all these cases, and the Chairman of the Board has promptly given advice and information to all members applying to him, and other members of the Board have done the same. Our attorney, Mr. McKeever,, has been extraordinarily successful and efficient, not a single case having been lost where he has had charge

of the case from its beginning. He has, moreover, been the means of greatly discouraging new cases in every community where he has wielded his blade. We know of several cases that have died in the borning because of the fear of blood that he has inspired. It is but fair that the Board should, in this report, commend his work.

The total expenditures of the Defense Board during the past year, not including the Shannon costs claim which has been held up by the President and Secretary, amount to \$1,154.95. A list of the warrants covering these expenditures, showing when and to whom paid, is attached to this report.

There has seemed to be a good deal of difficulty in ascertaining the amount of money available in the Society's treasury for the uses of the Board, and all information along this line is vague and indefinite. There has not been lacking criticism and reproach from some quarters, reflecting on the Board's economic practicability as a department of the Society. The low state of the treasury at times has been charged to the extravagance of the Defense Board, or rather to the costliness of the defense movement. It is one purpose of this report to show that there has been no extravagance on the part of the Board; that the Board has carried on its business well within the resources expressly set aside for its use.

We have about 1,250 paid-up members of the Society during the past year, as nearly as can be ascertained, from whom, under the constitution, we should have for exclusively defense purposes \$1,250.00. Thus it will be readily seen that the Board has carried on its work well within the limits of the resources expressly designated for it. The extraordinary expense of the Shannon case, while they must be paid, should not be charged strictly to this year's account, as they were incurred in the course of a litigation extending over two or three years, and should be paid in great part out of unexpended appropriations belonging to the Board from former

years. That there is such unexpended residue belonging to the Board can be readily shown, as follows: In May, 1911, at the inception of the defense work, the House of Delegates appropriated \$2,000.00 for the use of the Board. In May, 1912, the House of Delegates appropriated \$1,000.00 more for the same purpose, and in addition, set apart 25 cents per capita of the membership dues to be used as a Defense Fund. This realized that year (1912) according to the membership records for that year, \$340.00. The next year (1913), this 25 cents per capita realized \$260.00, thus prior to the last year (1914) there has been funds available for the Defense Board to the total approximate amount of \$3,600.00. The total expenditures of the Board in all that time was \$2,816.90, leaving an unexpended residue of \$783.10 belonging to the Board for the purpose of defense.

Since January 31st, 1914, we have been operating under the constitutional amendment, giving the Defense Board \$1.00 per capita of the increased (\$3.00) state membership dues. When the membership dues were increased by constitutional amendment in May, 1913, it was with the express purpose of putting the defense work on a substantial basis, but this amendment on which the increase in dues was authorized has been construed to be vague on the matter of the disposal and destination of the money thus raised. To clear up this matter once for all, a further constitutional amendment has been proposed and will be submitted to the House of Delegates at this 1915 meeting of the Society. If this amendment is adopted, a certain portion of the Society's revenues will be devoted to the uses of the Medical Defense Board and will be set aside under a separate account, so that some idea may be had at any time just what are the resources of the Board.

The Defense Board confidently feels that it is engaged in a good work for the profession of the state and should therefore have the support and encouragement of the membership of the Society.

Many cases have been fought and only one has been lost. Considering the number of cases, their wide distribution over the State, the bitterness with which they are fought in the face of a naturally vindictive sentiment against doctors, the record may well be considered remarkable and the expense incurred relatively small.

It is recommended by this Board that the advantages of the Society's medical defense feature be made a plea in every County for enlarging the membership, thus increasing the Board's resources and unifying the profession of the State along lines of mutual co-operation and protection against the insidious and rapidly growing evil.

Respectfully submitted,

O. P. DAVIS, Chairman.

O. D. WALKER.

On motion the reports of the Secretary, Treasurer, Editor and Committee on Medical Defense were referred to the Auditing Committee.

The following amendment to the Constitution was adopted: This amendment having been published in two issues of the Journal of the Society previous to the meeting of the House of Delegates.

Resolved, That section 2, Article XI of the Constitution be stricken out and the following be substituted therefor:

"Article XI, Section 2. The sum accruing from one dollar per capita of the annual membership dues of the Society, together with any additional funds specially appropriated, and together with any unexpended residue of previous appropriations for the same purpose shall be set apart and constitute a Medical Defense Fund, and shall be subject to expenditure on vouchers signed by the Chairman of the Defense Board and countersigned by the President of the Society."

The following amendments to the By-Laws were presented, read and laid over for one day until the meeting of the House of Delegates:

Chapter 1, Section 4.

"Members of this Society may be en-

rolled as emeritus or honorary members upon the certified recommendation of the the component County Society to which they belong, such recommendation to be based on years of faithful service in the profession, or on other grounds acceptable to the Council. Such emeritus or honorary members shall be entitled to all the benefits and privileges of active members, but shall be exempt from the payment of dues or assessments."

Chapter X, Section 14.

"Physicians residing in Counties where no component county society exists, who hold membership in any district medical society, independent or otherwise, whose principles of organization are recognized by the Council as not incompatible with those of the Society, may, by virtue of such membership, be accepted as members of this Society. Applicants for membership in this Society under this provision must have their credentials certified to this Society by the proper officials of the given district society; but their membership dues must be paid by them directly to the Secretary of this Society.

Resolved, That Section 2, Chapter IV, By-Laws, be amended to read as follows:

Section 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every twenty members and for each major fraction thereof, but each component society which has made its annual report and paid its assessment as provided in this Constitution and By-Laws shall be entitled to one delegate."

A resolution prepared by a Committee of the Kansas Section of the Alumni of the School of Medicine of the University of Kansas was read, and on motion it was laid on the table.

A representative of the Union Pacific Railroad presented to the Society, the efforts being made by that road to take care of the travel attending the meeting of the American Medical Association, at San Francisco, in June, and on motion, the Union Pacific Railroad was made the official road for the Kansas physicians

to the meeting of the American Medical Association, held at San Francisco, in June, 1915. On motion the meeting of the House of Delegates adjourned until 8:30 a. m., May 6th.

MEETING OF THE HOUSE OF DELEGATES.

The House of Delegates convened at 8:30 a. m., May 6th. The roll was called and a quorum was found to be present. President W. F. Sawhill, in the chair.

The hour for the election of officers having arrived, the following officers were elected for the ensuing year:

President—Dr. O. D. Walker, Salina.

Vice-president—Dr. J. R. Scott, Newton.

Vice-president — Dr. C. W. Jones, Olathe.

Vice-president—Dr. B. F. Chilcott, Osborne.

Treasurer—Dr. L. H. Munn, Topeka.

Councillors—First District, Dr. C. W. Reynolds, Holton, three years; Second District, Dr. C. C. Goddard, Leavenworth, three years; Seventh District, Dr. K. P. Mason, Cawker City, three years; Eighth District, Dr. H. N. Moses, Salina, three years; Ninth District, Dr. C. S. Kenney, one year.

Dr. C. S. Kenney not being present, there was no election for Councillor of the Ninth District, which permitted the President to appoint Dr. C. S. Kenney, Councillor of the Ninth District for one year. The standing of the Council is as follows:

First District—Dr. C. W. Reynolds, Holton, term expires, 1918.

Second District—Dr. C. C. Goddard, Leavenworth, term expires 1918.

Third District—Dr. H. B. Caffey, Pittsburg, term expires 1916.

Fourth District—Dr. O. P. Davis, Topeka, term expires 1917.

Fifth District—Dr. W. E. Currie, Sterling, term expires 1917.

Sixth District—Dr. A. D. Jones, Wichita, term expires 1916.

Seventh District—Dr. K. P. Mason, Cawker City, term expires 1918.

Eighth District—Dr. H. N. Moses, Salina, term expires 1918.

Ninth District—Dr. C. S. Kenney, Newton, term expires 1916.

Tenth District—Dr. D. R. Stoner, Quinter, term expires 1916.

Eleventh District—Dr. J. A. Dillon, Larned, term expires 1916.

Twelfth District—Dr. W. F. Fee, Meade, term expires 1916.

Delegate to the A. M. A.—Dr. W. F. Sawhill, Concordia.

The Auditing Committee made the following report:

To the Kansas Medical Society:

We, your Auditing Committee, have examined reports and accounts of the Secretary, Treasurer, Editor and Defense Board, and found them correct.

R. J. MORTON,

C. W. REYNOLDS.

Auditing Committee.

The following amendments were read the second time, and adopted:

Chapter 1, Section 4.

"Members of this Society may be enrolled as emeritus or honorary members upon the certified recommendation of the component county society to which they belong, such recommendation to be based on years of faithful service in the profession, or on other grounds acceptable to the council. Such emeritus or honorary members shall be entitled to all the benefits and privileges of active members, but shall be exempt from the payment of dues or assessments."

Chapter X, Section 14.

"Physicians residing in counties where no component county society exists, who hold membership in any district medical society, independent or otherwise, whose principles of organization are recognized by the Council as not incompatible with those of this Society, may by virtue of such membership, be accepted as members of this Society. Applicants for membership in this Society under this provision must have their credentials certified to this Society by the proper officials of the given district society; but

their membership dues may be paid by them directly to the secretary of this society."

Chapter IV, Section 2.

"Each component county society shall be entitled to send to the House of Delegates each year one delegate for every twenty members, and one for each major fraction thereof, but each component society which has made its annual report and paid its assesment as provided in this Constitution and By-laws shall be entitled to one delegate."

The following change was made:

End of Article IV, Section 2.

Add "or other societies approved by Council."

The following resolution relative to the support of the School of Medicine was introduced, read and unanimously adopted:

Whereas:—There seems to be a doubt in the minds of some as to the wisdom of the state conducting professional schools including the School of Medicine, and;

Whereas: The attitude of the state toward the School of Medicine and the State Hospital for the treatment of the indigent poor of the state should be clearly defined and its policy definitely settled for all time;

Therefore, Be it Resolved:—

That the Kansas State Medical Society, representing the constituent County Societies of the state in annual session, do hereby record our belief in medical education by the state as practiced by practically all European countries and by twenty-nine states of this county; that such state function is consistent with the settled policy of educating lawyers, engineers, pharmacists, teachers and farmers, and, in our judgment, of more vital interest to the health and efficiency and therefore to the happiness and prosperity of the state than the education of any other trade or profession.

We further believe that the value to the citizens of the state through the operation of the teaching hospitals is infinitely greater than the cost of educating the

young men of Kansas to be competent doctors and the young women to be trained nurses.

Be it further resolved, That we respectfully petition the Governor of Kansas and the next legislature to make adequate provision for the actual needs of the School of Medicine and the Bell Memorial Hospital, etc., and that copies of this resolution be sent to the Governor, the Board of Administration, and printed in the Journal of the Kansas Medical Society."

Report of the Committee on Necrology:

The committee on Necrology wishes to report the following list of physicians who have died during the past year:

Dr. Clifford P. Johnson, Coffeyville, member.

Dr. S. G. McDonald, Coffeyville, member.

Dr. L. S. B. Otwell, Independence, non-member.

Dr. C. W. Otwell, Independence, non-member.

Dr. James Ball, Ottawa, member.

Dr. O. S. Chester, Mound City, non-member.

Dr. G. W. Williams, Pittsburg, member.

Dr. W. R. Priest, Concordia, member.

Dr. Aaron Herring, Sparks, member.

Dr. M. W. Harner, Clay Center, member.

Dr. M. L. Fullenwider, El Dorado, member.

Dr. John Gephart, McLuth, non-member.

Dr. J. B. Armstead, Winchester, non-member.

Dr. D. J. Moyer, Junction City, member.

Dr. W. V. Stephenson, member.

Dr. J. H. Jacobs, Emporia, member.

Dr. Robert King, Emporia, non-member.

On motion the House of Delegates adjourned.

MEETING OF THE COUNCIL, MAY 6TH, AT
11:00 A. M.

President O. D. Walker in the chair.
Dr. K. P. Mason was elected member of the Medical Defense Board, for three

years. On motion the bill for the costs in the Shannon case and the Lindley case were ordered paid. On motion the Committee on Necrology was made to consist of the President and Secretary of this Society.

Topeka was selected at the next place of meeting.

Council adjourned.

—R—

County Societies.

DOUGLAS COUNTY MEDICAL SOCIETY.

The Douglas County Medical Society held its regular monthly meeting in the Y. M. C. A. building at Lawrence, Tuesday, May 11. We had a very interesting and profitable meeting. Dr. E. L. Uhl, of Baldwin, presented a very interesting case of urticaria, Quincke's disease.

E. J. BLAIR, M. D., Sec'y.

MC PHERSON COUNTY SOCIETY.

McPherson County Society met with Saline county in a joint meeting at Lindsborg.

Papers were presented as follows:

Dr. Brittain, Salina, Gastropstosis.

Dr. Beckman, Lindsborg, Acidosis.

About thirty members of the two County Societies were present. At the banquet following McPherson was the guest of Saline County.

WILSON COUNTY SOCIETY.

The Wilson County Medical Society met in the high school building at Neodesha, Monday night, May 3d. It was our regular March meeting, postponed on account of bad weather. Only one paper was presented, and that was on Pyorrhea, by Dr. Roy Matthews, Dentist, of Fredonia.

There were four dentists present: Drs. Matthews and Bailie of Fredonia, and Drs. Yingling and Nichols of Neodesha. The members present were: Drs. Miller & Miller of Buffalo, Drs. Addington and Billingslea of Altoona, Drs. Flack, Young, Wiley, and Duncan of Fredonia, and Drs. Moorhead, Williams, Sharp, McGuire, and Randall of Neodesha. Dr. Wilson of Fredonia was a visitor. Drs. Yarbrough and

Miller of the Public Health Service, who are conducting the sanitary survey of Wilson County were present, and both gave a talk, explaining in detail their object in being here.

As we had never done anything as a society to help the destitute Belgian physicians, a purse of \$15.00 was made up and forwarded to the American Medical Association of Chicago, to be used for their relief. The following each contributed \$1.00: Flack, Duncan, Moorhead, Allen, Billingslea, Addington, McGuire, Wiley, Randall, Bailie, Matthews, McConnell, Yarbrough, Miller, and Riley.

The Neodesha physicians had a lunch prepared, although they only had two hours notice of the meeting.

The regular June meeting will be a purely social affair, and will be held on the banks of the Verdigris.

E. C. DUNCAN, Sec'y.

NORTON-DECATUR COUNTY SOCIETY.

The Norton-Decatur County Society met in the Commercial club rooms at Norton, May 27.

The following program had been prepared:

Etiology and Diagnosis of Cholecystitis—O. M. Cassell, Long Island, Kansas.

Acromegaly—Case Report—Clinic—F. H. Smith, Goodland, Kansas.

Brain Tumor—Case Report—Clinic—W. C. Lathrop, Norton, Kansas.

Diagnosis and Treatment of Enteritis in Children—F. E. Gaither, Lenora, Kan.

Diagnosis of Early Pulmonary Tuberculosis with remarks on modern institutional treatment—C. S. Kenney, Norton, Kan., Supt. State Sanatorium.

—R—

During the month of June there are twenty-four conventions at the Panama-Pacific Exposition dealing with the subjects of medicine, hygiene and hospitals, beginning with the convention of the American Society of Tropical Medicine, June 14-16, including the international and national nurses' associations with 9,000 delegates, and culminating with the

sessions of the American Medical Association, June 21 to 26. At this last named convention 245 prepared addresses and papers will be submitted.

BOOK REVIEWS.

The Clinics of John B. Murphy M. D.

Volume IV. Number 1. February, 1915).

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volumn 1. (February 1915). Octavo of 185 pages, 41 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Published Bi-Monthly. Price per year. Paper, \$8.00. Cloth, \$12.00.

In this number of the Murphy Clinics there is first a Diagnostic Talk on Intestinal Fistulas followed by four cases. In this number there is also a lecture by Dr. Harvey R. Gaylord on "The Relation of Cancer Research to the Clinical Aspects of Cancer". Then there are reports of clinics as follows:—

Fecal Fistula Following a Late Operation for Peri-appendiceal Abscess Burrowing Upward Behind the Cecum.—Excision and Cure.

Fecal Fistula Following Peritonitis, Probably of Appendiceal Origin.

Appendiceal Concretion Producing Ulceration, Perforation, and Acute Peritonitis.—Gangrene of Cecum.—Postoperative Fecal Fistula.

Intestinal Fistula Following Late Operation for Apendicitis; Much Improvement with Tuberculin Injections.

Aneurysm of the Brachial Artery. Endoaneurys morrhaphy.

Division of the Brachial Plexus at the Level of the First Rib.—Suturing of the Divided Nerve Trunks.

Mixed Round—and Spindle-cell Perios-teal Sarcoma of the Right Femur.—Disarticulation at the Hip.

Open Reduction of a Posterior Dislocation of the Spine at the Level of the Second Lumbar Vertebra.—Laminectomy.

Old Compound Fracture of the Right Malar Bone Resulting in Loss of the External Wall of the Orbit.—Outward Dislocation of the Eyeball.

Ununited Birth-fracture of the Clavicle.—Ends Freshened and United with a

Lane Plate after Invagination.

Carbuncle of the Arm—Septicemia—Metastatic Pleurisy—Death.

Contracting Cicatrices on Index-finger and Thumb.—Excision.—Plastic Operation.

Laceration of Thumb.

Malunion of a Fractured Femur with Great Angular Deformity—Open Reduction and Plating—Hemorrhagic Cyst at the Fractured Site.

Talk on a case of Gangrenous Appendicitis.

The Clinics of John B. Murphy, M. D.

Volumn IV. Number II. (April 1915)

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volumn IV. Number II. (April 1915). Octavo of 197 pages, 47 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Published Bi-Monthly. Price per year: Paper, \$8.00, Cloth, \$12.00.

In this number of the Clinics there are Diagnostic Talks on:—Osteomyelitis; Recurring Multiple Osteomyelitis and Periostritis; Acute Osteomyelitis of the Right Radius. Illustrated by operations.

There is a diagnostic talk by Dr. Charles L. Mix on "Spontaneous Massive Coagulation of Cerebrospinal Fluid with Xanthochromia.—Its Significance in the Diagnosis of Lesions of the Spinal Cord and its Membranes.

There are reports on the following clinics:—

Bony Lipping of the Right Acetabular Margin and of the Neck of the Femur following a Metastatic Arthritis.—Arthroplasty of the Hip.—Cheilotomy.

Carcinoma of the Breast.—A Talk by William L. Rodman, M. D., Philadelphia.

Carcinoma of the Colon.—Diffuse Military Carcinoma of the Peritoneum.—Exploratory Operation.

Epithelioma of the Upper Lip Starting in an old Lupus Scar.—Excision, Plastic Closure.

Intramural Fibroid of the Uterus.—Diagnosis.—Hysterectomy.

Hypertrophy of the Prostate.—Urinary Retention and Self-catheterization.—Cystitis, Prostatitis, with Multiple Abscess and Fistula Formation.—Perineal Prostatectomy.

Pathological Technique

The new (6th) Edition

Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. Mallory, M. D., Associate Professor of Pathology, Harvard Medical School; and J. H. Wright, M. D., Pathologist to the Massachusetts General Hospital. Sixth edition, revised and enlarged. Octavo of 536 pages with 174 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth \$3.00.

It would require considerable space to present a synoptical review of Mallory's production and do it justice. It differs materially from the usual text book on pathology. There is individuality in its arrangement as well as in the presentation of the facts related.

He says in his preface:—"This book treats of pathology from the morphologic point of view. The aim constantly in mind has been to present the subject biologically, first by ascertaining so far as possible the cellular elements out of which the various lesions are built up, and then by tracing the development of the lesions from the simplest to the most complex.

The principle followed may be stated in another way. In order to understand an end result such as sclerosis of an organ or tissue (for instance, cirrhosis of the liver or chronic nephritis) it is necessary to find and study all the various acute lesions which may terminate in sclerosis."

"This book is based primarily on a study and analysis of the pathologic material collected during the past sixteen years in the Pathologic Laboratory of the Boston City Hospital."

Nervous and Mental Diseases

The new (8th) Edition

Nervous and Mental Diseases. By Archibald Church, M. D., Professor of Nervous and Mental Diseases in Northwestern University Medical School, Chicago; and Frederick Peterson, M. D., formally Professor of Psychiatry, Columbia University. Eighth edition, revised. Octavo volume of 940 pages, with 350 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

This is not a joint work, as one might suppose, but it is really the separate and distinct work of two men, each in his special field. Dr. Church has contributed the material on Neurology and Dr. Peterson that on Psychiatry.

This, the eighth edition, has been thoroughly revised to meet the advances that have been made in the various departments. The remarkable discoveries of recent years have made necessary a considerable revision of the subject of Syphilis. The recent research work in internal secretions has brought out many important points in the relation of the glands of internal secretion to nervous disorders and these have been included. A great many additions have been made to the original text as well as a complete revision of the whole.

The work is as complete and exhaustive as the present knowledge of these subjects will permit.

Principles of Hygiene

The New (5th) Edition

For Students, Physicians, and Health-Officers. By D. H. Bergey, M. D., First Assistant, Laboratory of Hygiene and Assistant Professor of Bacteriology, University of Pennsylvania. Fifth edition thoroughly revised. Octavo of 531 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$3.00 net.

The first chapter of this book is devoted to a study of air, its composition and all its variations. The next two chapters deal with ventilation and heating. Chapter IV is devoted to Water and Water Supply. The next chapter to the Removal and Disposal of Sewage and a separate chapter upon Garbage Disposal. In the discussion of subjects relating more particularly to personal hygiene there are chapters devoted to Food and Dieting, Exercise, Clothing, Personal Hygiene. The succeeding chapters are as follows:—Industrial Hygiene, School Hygiene, Military Hygiene, Naval Hygiene, Soil, Habitation, Vital Causes of Disease, Disinfection, Quarantine, Vital Statistics.

The book is particularly well suited for the use of health officers but it is of value to any practitioner. It contains much of value in the way of statistics as well as general information in regard to the causes and the prevention of disease.

Diseases of Infants and Children

The New (4th) Edition, Revised

A Manual of Diseases of Infants and Children. By John Ruhrah, M. D., Professor of Diseases of

Children, College of Physicians and Surgeons, Baltimore, Md. Fourth Edition, Thoroughly Revised. 12 mo. volume of 552 pages, 175 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$2.50 net.

There seems to be considerable demand for these little hand-books. This one must have appealed to the student and the busy practitioner for it is now in its fourth edition.

It is somewhat of a task to condense a treatise on the Diseases of Children into a 12 mo. volume of 552 pages, but in this case it has been accomplished and very little, if anything, has been omitted.

The writer is unable to appreciate the real purpose of this class of books. There is too little detail in the description of the disease, or of the treatment, to be of value to one who is not already familiar with the subject and to such an one there is little prospect that they will add anything to his information. As long as there is a demand they will be produced and, as long as they are produced, it is to be hoped that they will be as complete as this one.

Practical Medicine Series

Volume 1, Series 1915. General Medicine
Edited by Frank Billings, M. S. M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, and J. H. Salisbury, A. M., M. D. Professor of Medicine, Illinois Post Graduate Medical School. The Year Book Publishers, 327 La Salle Street, Chicago. Price \$1.50; Series of ten volumes \$10.00.

This volume is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume is complete for the year prior to its publication on the subject of which it treats. The series is published primarily for the general practitioner, but the arrangement in several volumes enables those interested in special subjects to buy only the parts they desire.

THERAPEUTIC NOTES

An Ideal Ether Container.

To their well-known ether can with dropper tube attachment, Parke Davis & Co. have added the regulation outlet or corked opening. This was done for two reasons: While a vast majority of an-

esthetists will undoubtedly continue to use the bent dropper-tube, which when cut permits the entry of air in one section and the ether to flow from the other, the older method may occasionally, for some reason, be preferred. Then, again, ether may be wanted for some reason other than anesthesia. The improved container meets both needs. The physician can utilize the bent-tube device if he chooses. He can use the corked opening if he prefers. The new ether container appears to leave nothing to be desired.

R

Correct posture is almost a forgotten grace. An alarmingly small percentage of adults stand or sit correctly.

At the Battle Creek Sanitarium patients and guests are under an unconscious schooling in correct posture. This is effected by the simple expedient of having chairs that make incorrect sitting relatively uncomfortable. The dining room guest-room lobby and even the chairs and swings on the great lawns are built along lines that insure proper posture in sitting. It is an easy matter to adjust one's self to the right method and the good habit thus unconsciously acquired remains with one long after leaving the Sanitarium.

Correct posture is also considered in the gymnasium exercises. The combined efforts often have the happy result of taking the "kinks" of habit out of one's posture and making him as straight as a James Fenimore Cooper Indian.

R

New and Non-Official Remedies.

Since publication of New and Non-Official Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Cholera Serobacterin, Mulford (Sensitized cholera vaccine). Marketed in packages of three syringes. H. K. Mulford Co., Philadelphia.

Meningo-Serobacterin, Mulford (Sensitized Meningococcus Vaccine).—Marketed in packages of three syringes. H. K. Mulford Co., Philadelphia.

Typho-Serobacterin- Mixed, Mulford (Sensitized Typhoid Vaccine).---Packages of three syringes containing graduated mixtures of killed sensitized bacillus typhosus, killed sensitized bacillus paratyphosus A. And killed sensitized bacillus paratyphosus B. M. K. Mulford Co., Philadelphia Pa. (Jour. A. M. A., March 13, 1915, p. 909.)

R

Caramel in Diabetes.

Grafe, (Muenche, med. Wochenschr., 1914). Caramel, in large doses, does not increase the glycosuria of diabetes, but does lessen the acidosis. It is readily assimilated and can be safely given to the severest cases of diabetes. Being a carbohydrate of high caloric value, its usefulness in this disease should be great. To prepare it, grape-sugar is heated dry in an aluminum pan to a temperature of 140-150 degrees C. (285-300 degrees F.) or it may be obtained ready-made from Merck. It is given in doses of 100-200 grm. daily, either in combination with an oatmeal regimen or together with vegetables, fat and proteid.--As abstracted by Interstate Med. Jour.

R

Hyoscyamus, a Neglected Drug

Hyoscin is largely used, yet hyoscyamus, from which it is derived, has sunk into unmerited obscurity. Nevertheless hyoscyamus is a valuable calmative and hypnotic which does not appreciably interfere with secretion and excretion. As a hypnotic and anodyne, while inferior to opium, it is often to be preferred because it relieves spasm and is in average doses free from danger

When a cough sedative is needed, hyoscyamus lessens the irritability without arrest of the secretions. In pain where arrest of secretion is disadvantageous, it, not hyoscin, is an admirable substitute for opium, and in a host of minor nervous affections of a spasmodic or painful nature

it may be employed for limited periods without inducing habit.---Medical Council.

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WANTED — Location in small town. Would pay reasonable price for office fixtures and consider car. No money for blue sky. Address

Dr. Wm. McKinney,
Galena, Kansas.

Doctor: Opportunity knocks at your door but once. Will sell interest in well-known medical institution; \$50,000.00 to handle it. Will produce 16 to 20 per cent on investment annually. Located in best city of the middle west. Reason for selling wish to retire. Address, Journal.

Doctors desiring "reprints" should notify the editor of The Journal. They will be printed at reasonable rates.

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FOR SALE—Static X-Ray machine made by National X-Ray Co., Topeka, Kansas. This machine is new, never having been used. A bargain. Ed. C. Jerman, R. F. No. 1, Topeka, Kansas.

If you want to buy or if you want to sell, a "Want" ad will do the rest.

FOR SALE—A Victor Finsen Light Apparatus. Will sell cheap. Address Journal Kansas Medical Society, Topeka, Kansas.

THE JOURNAL

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No. 7

The Cancer Question.

C. C. NESSELRODE, M. D., F. A. C.S.
Kansas City, Kan.

The cure of cancer remains the perpetual enigma of surgery. With each succeeding report of vital statistics the importance of the problem increases, for there is an alarming and progressive increase in the number of deaths from malignant tumors. The cancer death rate in Philadelphia has increased from 41.3 per 100,000 of population in 1872 to 86.3 in 1912. An approximate average increase in the incidence of malignant disease is noted not only in the United States but throughout the civilized world. These statistics have taught the medical profession that cancer has become a real menace, while the laity sees in the 75,000 deaths that occur annually in this country from cancer the hopelessness of the operative treatment. Incessant research has failed of positive results commensurate with those obtained in many other diseases and although we have been enabled to formulate principles of operative treatment in the vast majority of cases we fail in their timely application.

A vast mass of observation has been accumulated concerning the nature and behavior of malignant growths and the net result of which has been to show that cancer is primarily a purely local disease and that cure can be effected only by attacking the growth directly, either by complete excision or by some agent capable of reaching and destroying the uttermost cell. The path of future research must be

directed into three main channels, the objects of which are to find, first, the cause; second, the essentials of early recognition, and third, the specific cure. In the face of this terrible scourge and the appalling human suffering which it entails it is almost incredible that any responsible members of society could be found to throw any obstacle in the path of that experimental work in which lies our chief hope of success in the unraveling of the cause and cure of cancer as well as of many other problems of disease and death. It is still more unfortunate that a small group of misguided fanatics, by the exercise of money and the misrepresentation of facts, should be able to halt the progress of science, or even be permitted to ask of the sober judgment of civilization the question of whether the half million of lives and the millions of mourners each year at the shrine of this bloody Moloch of malignancy justify the use of the lower forms of life to the investigations of the problems of life.

It is just as futile to expect the biologist to wrest the secrets of life from nature without employing living animals for experiment as it would have been to expect the steel worker to cross chasms with his bridges, pierce the clouds with his buildings, or cross the seas and continents in safety on metal wings without having had the opportunity of previously testing the strength and properties of his material.

This is a question which touches deeply every man, woman and child. Hundreds of lives are saved yearly in our city and in your cities by the application of the

facts which could have been learned only by animal experimentation; and the conquest of the disease has only begun. We are all, even the anti-vivisectionists, beneficiaries of knowledge so won. Shall we deny to posterity the benefits of continued work? Is there anything in Holy Writ or human experience to deny man the right to employ animals for his comfort, convenience, food, the alleviation of suffering or the prolongation of life? Is there any cruelty so cruel as that which in the guise of prevention of cruelty to animals aids and abets the preventable sufferings of man? Is the sensible section of the public to be hookwinked into writing a new Decalogue in which it is to be enjoined that thou shalt love thy dog before thy neighbor? Let no one suppose that I have any intention of arguing with the anti-vivisectionists. "Answer not a fool according to his folly, lest he be wise in his own conceit." The anti-vivisectionist is a defective and as such is incapable of grasping the true relations of this question. He does not understand that the surgeon may be most kind when he inflicts pain.

Our efforts and arguments must be directed to the rational though at times uninformed and thoughtless people who can and will see the matter in its true light if it is properly presented. There should be just sufficient publicity on this subject as will suffice to keep the thinking man in possession of the true facts. If this is done we can have nothing to fear. "A good cause can sustain itself upon a temperate dispute." The crank dearly loves controversy and attention. Without these he dies of inanition.

Until we have discovered a specific cure for malignant disease it is our duty to educate both the laity and the medical profession in the few underlying first principles that alone insure success with the modern methods of operative treatment.

The prognosis of the vast majority of cancers depends primarily upon the possibility of complete excision of every ves-

tige of the disease. From this standpoint, therefore, internal cancer presents difficulties of treatment, purely mechanical in nature, that at once afford a small measure of hope in comparison with the external or superficial cancers. In the thoracic portion of the esophagus and the cardiac end of the stomach, areas as yet almost inaccessible to the knife, the diagnosis of cancer means hopeless resignation to an end unparalleled for its attendant suffering. In addition to the mechanical problems to be overcome, the diagnosis of internal cancer in its curable stage is impossible in such a large proportion of cases that the prognosis is essentially bad. It is estimated that 30,000 people will die during the present year in this country from cancer of the stomach. Each death is mute testimony of our limitations in diagnosis, and not of the power of surgery to cure when applied at the opportune time. It is impossible to recognize the majority of internal cancers in the operable stage and it will take several generations of medical men to learn the necessity of sending patients with indistinct symptoms to the operating room—the laboratory of living pathology.

Cancer of the skin and its appendages affords a better prognosis, not only because of the greater ease with which mechanical details associated with total enucleation of the growth are overcome, but also because of the greater ease of the diagnosis of a tumor accessible to the eye and hand. These cancers of the skin which show little or no tendency to involve adjacent lymph nodes, and which show only slight malignant tendencies, are usually curable. These conditions, especially when involving the face, may be treated with the x-rays.

Among women, the womb and the breast are the most fruitful sources of cancer. Cancer of the breast more nearly resembles cancer of the skin in as much as it is accessible to the eye and the hand for its diagnosis and we must on every occasion emphasize among our lady patients the fact that every lump in the breast is

a dangerous thing because of the likelihood of its being cancer. It is a statistical fact that better than 90 per cent of the lumps in women's breasts are either malignant from the start or become so later.

Cancer of the uterus is less easily diagnosed, for obvious reasons, than are the breast tumors. It so seldom gives rise to symptoms in its incipiency. Pain not coming on until there is lymphatic involvement, so like cancer of the stomach, is frequently not recognized during its curable stages. We wish, at this point to call attention to one agency in the treatment of cancer of the uterus, and that is the cautery according to the Percy Technic. Paul Ehrlich, in 1905, discovered that cancer cells are more susceptible to heat than are normal tissue cells; that the death point of a cancer cell is 111 to 113 degrees of temperature while the death point of normal tissue cells is 133 degrees of heat, so that theoretically, if it were possible to raise the temperature of any patient who has cancer to 120 degrees and hold it there for twenty minutes, that each and every cancer cell in this patient would be destroyed while the normal tissue cells would remain unimpaired. These observations were verified by a number of other German observers. Having established the fact of this 20 degree heat margin they then set about to find a way to raise the temperature of any cancerous mass to a point above 113 degrees yet below 130 degrees. Various agencies were tried, including steam and hot water, but it remained for one of our American surgeons to devise a method that was practical.

Dr. Percy devised a cautery iron heated by electricity, the degree of heat being controlled by a rheostat. This full technic is described in *Surgery, Gynecology and Obstetrics*, October, 1914. We have used this technic on a number of cases of carcinoma of the uterus, particularly of the cervix, with very gratifying results. It established the use of the cautery upon a scientific basis and gives one a very definite process upon which he can base this

line of treatment, and while we have not used it in any cases except carcinoma of the uterus, we feel sure that it is equally applicable to cancer in other parts of the body.

It has been suggested that the cases reported cured by the use of Cooley serum have been cured because of the vulnerability of cancer cells to heat; that the reaction following the injection has raised the temperature of the patient's body above the death point of the cancer cells, thus resulting in their destruction. The question of heat in the treatment of cancer is becoming an intensely interesting one and is far too large a subject to be treated exhaustively in this article.

It would seem proper in closing this rather fragmentary discourse on cancer by attempting to especially emphasize just a few points.

First.—While not entirely proven, it seems quite certain that cancer is simply the end stage in the reaction of the epithelium to a long continued irritation; that preceeding this end stage (cancer) there are many stages, all of which can be grouped under a heading Pre-cancerous Stage. In view of these facts, we should everlastingly emphasize the importance of relieving each and every source of irritation in each and every part of the body. Furthermore, we should recognize that any agency used in the treatment of cancer, which does not deliver to the cancer a sudden knockout blow, ought to be discontinued, because if it does not kill the cancer at once it acts only as an irritation and will stimulate its growth. The many failures recorded in the use of the x-ray and various chemicals is due to their not having delivered an early knockout blow.

Second.—As above mentioned, early recognition is the key to the correct treatment of cancer. With this in mind, the realization of the part that irritation plays in the causation of cancer and the recognition that there is always a pre-cancerous stage in which all of these lesions are curable becomes of vast importance.

Third.—Popular education will play a great part in the solution of the cancer question. The very absence of symptoms in the early stages of cancer makes early recognition very difficult unless the patient has a knowledge of this subject that approaches in some measure the knowledge of the physician. With this knowledge he may protect himself by coming to his physician for early advice about any suspicious symptom or lesion. We should bear in mind that it is from the physicians that the public should receive this popular education.

Fourth.—In the light of our present knowledge early and radical surgery offers the most logical hope of cure. There may, at some future date, be developed a specific for cancer, but at present there is none and we must emphasize the fact that most of the so-called cures only mean a very costly and many times fatal delay.

Fifth.—Every physician should realize very keenly his responsibility in giving treatment or advice in cancer. The physician, who by the application of some treatment which does not deliver to cancer an early knockout blow and thus cause an unnecessary delay in the proper treatment of cancer, certainly must have a place in the responsibility for the loss of the large number of lives thus caused by this delay.

—————R—————

Recurrence of Cancer After Operation— Some Conclusions After Long Observation.

J. C. MCCLINTOCK, M. D., Topeka, Kan.

It is most depressing to undertake to answer a question as to the recurrence of cancer after operation. In looking over thirty-eight years of practice it seems profitable to divide that time into two periods—one of twelve years in which I did a general practice and from which was largely drawn my surgical cases. The other period of twenty-six years records surgical cases brought from the practice of others.

The first period shows cases of cancer

which were operated as soon as a diagnosis was made and these gave uniformly good results and almost always without recurrences. The latter period shows cases in all stages, from early to late, and here we have a series, in a majority of which recurrences have taken place.

An analysis shows two differences, in one series of cases the operation was done early, in the other it was late, as a rule. Both series were by the same operator with the difference that the method of operating in the latter series of cases was much more thorough and extensive.

There is the case as it has appeared in one man's practice. Draw your own conclusions. It shows clearly that the early operations are followed by cure, and by a cure I mean that the patient must never have a recurrence. I cannot feel, as some feel, that a case which does not recur in two years should be counted a cure, neither should a five year period of freedom from recurrence be counted an absolute cure. Among the cases of the first period mentioned above may be cited one individual with a cancer of the breast. This case had been under the watchful care of a physician for one year. When retraction of the nipple and other symptoms of an advanced stage of the disease had appeared, the case was brought to me for an operation, which was done. The breast was removed and the enlarged glands were taken out of the axilla. The patient made a good recovery and for many years presented herself occasionally, at long intervals, for examination. She showed no signs of a recurrence after more than twenty years. Twenty-four years after the operation this patient died of an intrathoracic cancer. Here again draw your own conclusions. Was this a recurrence or was it the development of a new and independent growth? This case was late in its stage of development at the time of operation and it was not localized but had involved the lymphatic glands in the axilla. This is one point to consider. Another point is that the operation was a removal of the breast and of

the palpably diseased glands in the axillary space. There was no thorough removal of muscle and sweeping removal of all removable tissue, such as was done in some of the cases in the second series.

This brings up the question whether we may not have overdone our work in doing some of our extensive operations in the endeavor to be thorough. This very thorough operation, perhaps, has interfered with the patients resistance and his recovery.

It is everywhere agreed that cancer in its early stage and while it remains localized is curable by surgical means, and also that cancer reaches a late stage where a surgical operation may not be undertaken. The physician who has his cases operated in the early stage is the one who will be able to report permanent cures in almost all of his cases, while the man who treats his cases in various ways, or who waits until he is sure in his vacillating mind that his diagnosis is correct and then, too, late, rushes his case off to the surgeon, whom he begs to operate on an inoperable case—his patients all will die, or if an operation be undertaken the growth will recur.

There yet remains the mid-stage, that between the early and late stages of the disease. It is in this stage where the great majority of surgical operations are performed. The surgeon cannot have his choice of time for the operation. He can decline to operate in the very late case, but he has no chance to reach the early case if the physician does not have the courage to refer these and the doubtful cases to him. For the good of the patient the surgeon wishes he knew how to plead that these cases might have the early benefits of surgery.

The cancer in its mid-stage may have an even chance for a cure by surgical treatment—some statistics seem to show this or even a better chance—but I am inclined to think that if all operators would give a report of all cases, the complete statistics would show that the majority of cases have a recurrence, soon or late.

The Present Status of Cancer Research*

By LEO LOEB, M. D., Philadelphia.

In the following brief discussion of the present status of cancer research, I shall have to limit myself to a mere outline of a few of the salient features, the necessary limitation of time precluding any attempt at completeness.

It is hardly ten years since we entered the experimental period of cancer investigation. We are in the beginning of our work and therefore not yet in a position to give definite answers to the most commonly asked questions.

Whether or not cancer is a parasitic disease can neither be affirmed nor absolutely denied at the present time, but I believe that on the whole the increase in our knowledge in recent years has not tended in the direction of the parasitic hypothesis. All attempts actually to demonstrate the presence of a micro-organism have failed so far. But certain indirect evidence exists. In the first place, in restricted parts of certain towns, in certain villages or even in certain houses, the relative number of cancer cases was found much increased. The value of this apparent evidence in favor of infection, is markedly diminished by the fact that the character of the tumor in these cases varied and that in certain cases hereditary influences could not be excluded.

Much more noteworthy are cases of the so-called endemic occurrence of cancer in animals. Hanau observed among a family of white rats three successive cases of squamous-cell carcinoma of the vulva, and in another family of white rats I found three cases of cystic sarcoma of the thyroid in the course of three years. If we consider that in the thousands of white rats which have been observed in various laboratories in this country, only one other case of cystic sarcoma of the thyroid can be found, the possibility that we have to deal with mere coincidences becomes ex-

*From the Laboratory of Experimental Pathology of the University of Pennsylvania.

ceedingly small.** There exist, however, strong reasons for attributing these and other similar occurrences to hereditary conditions rather than to infection. But only systematic breeding experiments in animals, such as those carried out at the present time by E. E. Tyzzer, can definitely decide what part hereditary factors play in the pathogenesis of cancer.

The discovery that, in animals inoculated with carcinoma, sarcoma may grow besides the carcinoma might also be cited in favor of micro-organisms as the cause of cancer. It suggests the transmission of micro-organisms from epithelial to connective tissue cells, as a result of which the latter assume a sarcomatous growth. But other interpretations are possible. We cannot absolutely exclude even a direct transformation of the carcinomatous into the sarcoma cells. More recently, however, Carl Lewin observed, after the transplantation of a glandular carcinoma, not only the development of a sarcoma, but, at places of contact with the overlying skin, the carcinoma seemed to induce the proliferation of the epidermis leading to the production of a squamous-cell carcinoma, and again suggesting the transmission of a micro-organism to the epidermal cells. But inasmuch as we have here to deal with an isolated observation it may be advisable to reserve judgment at the present time. If, then, no fact known so far necessitates the assumption of micro-organisms as the cause of cancer, nevertheless their presence as intracellular parasites would explain very well the apparently endless proliferation of the cancerous cells. Without the hypothesis of the presence of such a constant, living stimulus, we will have to assume that the increased rate of cell-division, combined with an increased power of penetrating surrounding tissues and of metastasizing which characterize cancer cells, can be transmitted evidently to the following cell

generations. In other words, we would have to assume a lasting inheritance of acquired characters in somatic cells. That such may be possible cannot be denied, and perhaps it will be found to be the result of long-continued irritation. But at the present time it has not yet been definitely proved.

There can, however, be no doubt whatever that various nonspecific physical or chemical stimuli are among the best-established factors in the pathogenesis of cancer. Ordinary somatic cells, without any predisposing embryonal maldevelopment or without any postfetal misplacement, can in certain cases become transformed into cancer cells under the influence of long-continued irritation.

A similar effect of individual mechanical stimuli can be very well demonstrated in the case of cancer cells. Through such stimuli it is possible to increase the proliferative energy of certain tumors, and such an increase is a cause of the greater virulence of recurrent tumors so frequently observed after operations. But it is also possible to decrease experimentally the proliferative powers of tumors, even in a quantitatively determined way, by exposing tumor cells to the action of physical or chemical means before transplantation.*!

These and other experiments, which lack of time does not permit to mention, clearly prove how important the study of animal tumors has been and will be still more so in the future for the analysis of cell and tissue growth in general. And, conversely, any progress in our understanding of normal tissue growth will be a step in advance in the understanding of cancer; and we must keep it well in mind that the cancer problem is ultimately a part of the general problem of how the proliferative power of certain cells can be increased apparently indefinitely.

Under certain conditions a long-continued irritation was not required, and a single trauma has undoubtedly been fol-

**And it may be especially mentioned that inasmuch as rats of all ages were examined with negative results, this occurrence cannot be ascribed to differences in the ages of various sets of animals.

*!These and other facts were first established through experiments undertaken almost ten years ago in Chicago.

lowed by the development of a cancer. Even this fact seems now accessible to a rational explanation, since in experiments concerning the non-production of the maternal placenta, we learned of the existence of sensitizing substances, specific for certain tissues, and that after a previous sensitization an ordinary trauma may call forth a tumor-like cell proliferation which lasts as long as the organ is sensitized.

The possibility of procuring any desirable number of laboratory animals with growing sarcomas or carcinomas, offered an excellent opportunity for therapeutic experiments.

The results may be summarized as follows: All attempts to influence the growth of tumors by substances which have proved especially in the hands of Ehrlich, so efficient in the treatment of protozoal diseases, have failed.

Many attempts have been made, especially by Jensen, to prepare, by repeated injection of tumor material into animals of other species, a curative serum. Until recently these efforts did not seem very successful. But quite recently, after a modification in the technic, Walker in Liverpool reports much more promising results. In a certain number of cases the serum caused a retrogression or disappearance of the inoculated, growing tumors. The number of his experiments is, however, as yet too small to permit of any definite conclusion.

In the case of the inoculated sarcoma of dogs, Beebe and Crile succeeded in curing animals by the injection of large quantities of the normal blood serum of dogs not immunized. For a full understanding of this result it is necessary to remember that such inoculated sarcomas in dogs are more labile than many other tumors; that they can therefore more easily be induced to retrogress and that in a large number of cases such a retrogression takes place spontaneously.

Positive results were obtained in producing an active immunity against tumor growth. Gaylord and Clowes and also Sticker found that animals, in which a

tumor had retrogressed spontaneously, were immune against tumor growth if inoculated a second time. Such a spontaneous retrogression is occasionally observed in transplanted tumors and it can be induced at will, in a large number of cases, by the inoculation of tumor material of experimentally decreased virulence, as my experiments with the sarcoma of rats had proved previously.

Furthermore, Sticker, in the case of dogs, and Ehrlich, Bashford and Schoene, in the case of mice, showed that it is possible to produce an active immunity against a subsequent inoculation with tumor, either by a previous injection of a certain quantity of fresh tumor material, which after transplantation did not grow, or even in the case of the mouse with a suspension of normal liver, spleen or erythrocytes of a mouse.

Before these latter experiments had been undertaken, I had occasion to point out that tumor material of experimentally decreased virulence (*e g.* after previous heat) might be of especial use for vaccinating purposes*!! and two years ago Bridre reported successful experiments in which he showed that after exposing tumor material to a moderate heat, an active immunity can be produced in the inoculated animals without much danger of the development of a tumor from the cells which served as a vaccine. This mode of immunization becomes still more important, if we consider that, according to Bashford, only tumors and tissues of the same species can be used for immunization.*2 The presence of an antibody has so far not been proved in actively immunized animals, and it is not certain on what mechanism the active immunity depends.

*!!Lack of means prevented me at that time and also later from carrying out the proposed experiments. But more recently we have been able to resume our transplantation work, and we hope soon to be able to report on experiments with tumor material of experimentally decreased virulence, through which it was hoped to immunize animals, although in itself it had lost its power of proliferation.

*2 Different results have been recorded by Ehrlich and by Carl Lewin.

All these results, important as they are from a theoretic point of view and however promising they may be, at the present time do not admit of any application in man for the following reasons: These immunizing inoculations have so far been effective only if they were made before the tumor had been transplanted; they were without avail, in cases in which the tumor growth had already commenced at the time of the immunization. Furthermore, all these experiments relate almost exclusively to transplanted, not to spontaneous tumors with which alone we have to deal in man. It is quite certain that marked differences exist between the growth of transplanted and of primary tumors, the latter being in all probability much less accessible to the action of therapeutic agencies than the former.*3 It seems to me likely that, if immunization should be attempted in man, it might be best to use the sterile, extirpated tumor of the patient for vaccination, after having decreased its virulence sufficiently through a moderate heating or through similar physical means.

In this brief review, mention must be made of some diagnostic methods which were in part, at least, an outcome of experimental work on animal tumors. R. Weil, in New York, and later Crile and others found that the blood serum, of animals and man affected with cancer, gained certain distinctive, hemolytic properties and that, likewise, the erythrocytes behaved in a peculiar manner, and Brieger and his collaborators discovered a change in the antitryptic power of the blood serum in cancer patients. Both of these reactions, but especially Weil's reaction, without being quite specific for cancer, may be used as a supplementary aid in diagnosis.

In conclusion, I wish to state that at the present time the principal weapon in the struggle against cancer still consists in the thorough extirpation of the tumor.

*3 I have drawn attention to interesting differences between the growth of primary and of transplanted tumors at various former occasions.

In the beginning, cancer is a local disease, although it is not unlikely that certain general conditions exist in the patient which render possible the transformation of normal into cancerous tissue, a transformation that may be so gradual that, by histological examination, it is sometimes impossible to indicate the exact time when such a transformation is beginning to take place. Certain experiences in tumor inoculation prove that the liability to the formation of local metastases may differ even in tumors of the same histological structure. It will therefore be necessary to avoid carefully any contact between the tumor and the surrounding tissues during the operation. Inasmuch as mechanical injury to a tumor may in certain cases lead to an increased energy of growth, it seems to me that, whenever possible, an exploratory incision ought to be followed at once by the radical removal of the tumor. It will be necessary to use all means to secure an early diagnosis and an early operation.

As to preventive measures, the only advice to be given is that long-continued irritation of any kind be avoided as much as possible. But it is only through the complete recognition of the underlying causes, through experimental study, that we can expect to find the rational treatment of cancer. Such experimental investigation, however, requires more means than are usually at the disposal of the investigator and of the university. These means will be forthcoming, if the public realize the importance of this work for its welfare. And the physician, in arousing public interest in these problems, will lay the surest foundation for the discovery of the most efficient treatment.

—B—

The Prevalence of Cancer.

By SAMUEL G. DIXON, M. D., LL. D.,

Pennsylvania State Health Commissioner.

From a Symposium on Cancer distributed by the Commission on Cancer of the Pennsylvania State Medical Society.

As a study of any subject is obviously more or less impossible from statistical data orally presented, I will take the lib-

erty of merely calling your attention at this moment to some of the more general and most important facts concerning the prevalence of cancer, and leave the details of the statistical tables to your more leisurely consideration. From a purely scientific view point, the term cancer may be considered as somewhat indefinite and unsatisfactory, including as it does a considerable variety of neoplasms worthy of individual study, but which are too frequently grouped under the general term.

Statistically, deaths from cancer include those definitely returned as such, also those in which the nature of the new growth is either not definitely diagnosed or not definitely stated by the attending physician who may simply employ the term "malignant growth," or some such equivalent, upon the death certificate.

Therefore, so far as statistics are concerned, the term cancer may be considered as including cancer and other malignant tumors, and excluding all tumors which are not definitely stated to be of malignant nature. It is unfortunate that even this liberty must be taken with the individual returns of causes of death, but experience has proved that in order not to vitiate our statistics such inclusions must be made.

In view of the fact that some of the most powerful energies of medical science are at the present time being exerted in investigating the nature, origin and incidence of cancer, the importance of accurate and definite statistics upon the subject becomes of absolute necessity. In the Bureau of Vital Statistics in the Pennsylvania State Department of Health, it is necessary to ask each month not less than twenty-five physicians throughout the state for a more definite statement, even as to the location of cancers and malignant growths. It may not be inappropriate to remark here that while the information is in the majority of instances cheerfully supplied, in some others the inquiry is characterized as unnecessary or highly impertinent.

As the value of all mortality statistics

must depend upon the honesty and accuracy of physicians who supply the information upon which these statistics are based, I know of no better time or opportunity to impress upon the members of this society the fact that they individually can very materially aid in the study of cancer by stating definitely upon all death certificates not only the organ or part affected, but whenever possible the nature of the neoplasm, such as carcinoma, sarcoma, epithelioma, etc.

A glance at the available statistics concerning cancer shows most conclusively that the mortality from this disease is steadily increasing throughout the civilized world.

In the registration area comprising about fifty per cent of the entire population of the United States, there were 30,514 deaths from cancer in all forms in 1907. We are, therefore, probably quite safe in assuming that over 50,000 deaths occurred from this disease in the entire United States during that year.

The death rate per 100,000 of population increased from 47.9 in 1890 to 73.1 in 1907. In England and Wales during the same period the rate increased from 63 to 91, in Ireland, from 43 to 76; in Scotland, from 62 to 94; in Prussia, from 41 to 73; in Italy, from 43 to 61; in Spain, from 39 to 47; in Hungary, from 27 to 42; in the Netherlands, from 70 to 102; and in Switzerland, from 114 to 132. The statistics for Pennsylvania show that the rate in 1890 was 41.5, and in 1907 it was 62.8, in neither instance being quite so high as the general rate for the entire country, but nevertheless sharing consistently in the steady and average increase.

If the proper correction is made for the distribution of population by age periods, a most important factor in determining comparative death rates from this disease, the average for the several states in this country, which apparently present some rather wide variations, would be found to possess considerable uniformity.

The distribution between urban and rural localities shows no marked varia-

tions, the apparently high rates for some of our larger municipalities being accounted for by the fact that many cases of cancer from rural district ultimately find their way to the hospitals in cities and the deaths occurring therein are so registered.

The International Classification of causes of deaths makes seven subdivisions of cancer, according to locality or organ affected. These groups with the percentages of deaths to total deaths from cancer are as follows:

1. Cancer of the mouth	3.2
2. Cancer of the stomach and liver	38.0
3. Cancer of the intestines and peritoneum	11.7
4. Cancer of the female genital organs	14.3
5. Cancer of the breast	8.5
6. Cancer of the skin	3.7
7. Cancer of the other organs or organs unspecified	20.6

SEX

In the aggregate, deaths from cancer are more frequent in females. If, however, we exclude cancers of the mammary and generative organs and base our comparison upon the organs or localities of the body which may be equally affected without regard to sex, we find the deaths of males largely in excess.

The mammary and generative organs are affected in about forty per cent of the deaths among females, and about an equal percentage is due to cancer of the stomach, liver and intestines combined, while among males the latter organs are affected in at least fifty-three per cent. of all cases.

AGE.

While ninety-six per cent of all deaths from cancer occur in persons over thirty-five years of age, it is interesting to note that the death rate for children under five years of age is greater than the rates between the years of five and fourteen.

Among 207,764 deaths from cancer compiled by the registrar general's office of England, 749 occurred in children under five years of age. Of this number 240, or thirty-two per cent., were due to cancer of the kidney and suprarenal glands, and 104, or fourteen per cent., were due to cancer of the eye or orbit; proportions which are far in excess of the rates at any subse-

quent quinquennial age period for those organs or localities.

COLOR.

Cancer does not seem to prevail to the same extent among the negroes of this country as it does among the whites. Vital statistics are exceedingly meager in many portions of the South where the negroes form a very large proportion of the population.

In those localities, however, in which registration is quite accurate, the difference appears well marked. In Washington, D. C., the rate per 100,000 of each color is, white, 102.0; black, 63.4. In Louisville, Ky., the white rate is 54.9; black, 29.6. In New Orleans, La., the white rate is 87.1; black 77.2. In Baltimore, Md., the white rate is 89.4; black, 68.3. In Memphis, Tenn., the white rate is 59.1; black, 33.4, the average difference for the five places just mentioned being 22.1 per 100,000 of population.

CONJUGAL CONDITION.

A comparison between the death rates of the single, married and widowed at the various ages shows that the rate for the widowed of both sexes is higher at all ages than either the single or married, and that the rate for the single of both sexes is higher than the married at all ages over forty-five years.

NATIVITY.

The death rates in the United States according to the nativity of mothers form quite an interesting comparison with the death rates of the foreign countries represented. Italy, Hungary and Russia present the lowest death rates in Europe, and the immediate descendants of mothers from these countries present the lowest death rates in the United States, and very considerably lower than the general death rate for the entire country.

A reference to the statistical tables will show the proportion of deaths from cancer for certain localities by sex and age per 1,000 deaths from all causes at corresponding ages, and represents a more detailed subdivision than the group of the International Classification before men-

tioned.

From this table it will be noticed that cancer of the abdomen, excluding cancer of the stomach, liver, bladder, uterus and ovaries, was more frequent in males than in females and most prevalent between the ages of twenty to forty-four years. Cancer of the bladder was more frequent in males than females at all ages with the greatest prevalence over sixty-five years of age. Cancer of the brain was more frequent in males at all ages and greatest at the age period of twenty to forty-four years. Cancer of the eye was more frequent in males at all ages and greatest at the age periods over sixty-five years. Cancer of the ear, face and neck was more frequent in males at all ages and greatest at the age periods over sixty-five years. Cancer of the larynx was more frequent among males at all ages and greatest at the age period of forty-five to sixty-five years. Cancer of the liver was more frequent in males at all ages under sixty-five years. Over that age it was more prevalent in females, the highest rate being for males at the age period of twenty to forty-four years. Cancer of the lungs was more frequent in males at all ages and greatest at the age period of forty-five to sixty-four years. Cancer of the mouth was more frequent in males at all ages

and greatest over sixty-five years of age. Cancer of the rectum was more frequent in males at all ages and greatest at the age period of twenty to forty-four years. Cancer of the stomach was more frequent in males at all ages and greatest at the age period of forty-five to sixty-four years. Cancer of the uterus was more prevalent at the female age periods of twenty to forty-four years; and of the breast, at ages over sixty-five.

The statistics of occupation in relation to cancer do not appear to associate an excessive proportion with any individual occupation.

These few facts, meager as they are in connection with the tabular data of this very important cause of death, should be sufficient to demonstrate the fact that if statistics are to furnish any clue to the cause of cancer, or are to aid in any way in its prevention, there must be an unselfish and painstaking effort on the part of physicians to supply full and definite information concerning each individual case. This is imperative in order that proper weight may be given to every factor in final analysis, as it may be in the correlation of identical facts concerning a large number of deaths that we may at least find a guide to fruitful research.

CANCER IN THE UNITED STATES.

Rates per 100,000 of population.

	1900	1901	1902	1903	1904	1905	1906	1907
Registration area	63.0	64.5	65.5	68.6	70.6	72.1	70.8	73.1
Connecticut	68.7	70.3	68.3	76.4	68.8	75.9	80.6	80.1
Indiana	42.8	44.1	47.9	49.3	50.4	55.3	53.7	57.1
Maine	74.6	82.4	86.7	85.0	86.3	92.9	86.2	101.3
Massachusetts	74.6	76.3	76.5	80.9	83.0	89.3	90.3	93.5
Michigan	61.2	60.0	59.6	67.5	67.4	64.2	67.6	66.7
New Hampshire	71.9	87.7	81.2	77.5	80.4	83.7	89.2	95.8
New Jersey	53.9	58.4	54.0	58.3	57.6	63.2	66.1	65.4
New York	66.7	70.1	69.5	71.7	73.8	76.1	76.2	78.9
Pennsylvania	41.5						60.7	62.8
Rhode Island	70.5	73.0	83.1	77.3	86.6	80.4	78.3	91.1
Vermont	87.9	70.5	69.1	93.7	87.0	84.2	85.3	99.0

Between the years 1900 and 1906, the rates for the principal foreign countries were as follows, per 100,000 population:

	1900	1901	1902	1903	1904	1905	1906
England and Wales	82.9	84.2	84.4	87.2	87.9	88.5	91.7
Scotland	80.0	82.0	83.0	84.0	84.7	88.4	
Ireland	60.0	65.0	65.0	69.1	69.4	74.9	79.3
Germany	72.0	75.0	75.0	77.4	80.0	80.9	
Norway	91.0	95.0	88.0	93.2	96.0	98.4	
Hungary	37.0	36.0	38.0	39.1	40.6	40.2	40.4
The Netherlands	92.0	94.0	95.0	99.0	97.9	101.2	100.7
Switzerland	130.0	128.0	127.0	131.0	130.3	131.8	
Spain	39.0	42.0	43.0	44.2	46.8	46.8	48.0
Italy	52.0	53.0	54.0	54.0	56.9	58.0	61.3

CONJUGAL CONDITION.

Death rate per 100,000 of population.

	15 to 44 yrs.			45 to 64 yrs.			Over 65 yrs.		
	S.	M.	Wd.	S.	M.	Wd.	S.	M.	Wd.
Total	8.7	28.6	69.6	192.1	175.6	256.4	518.7	426.0	455.8
Males	6.5	15.7	40.3	142.1	135.9	200.8	512.5	388.0	433.7
Females	11.3	39.8	80.7	238.8	238.8	275.9	523.1	496.7	464.9

Proportions of Deaths From Cancer of Certain Organs per 1,000 deaths from all causes at Certain ages.

Locality.	All Ages.			20 to 44 Years.			45 to 64 Years.			65 Years and Over.		
	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.
Abdomen	82.8	92.4	76.9	78.6	118.9	62.6	79.2	92.2	71.5	88.4	83.3	92.4
Bladder	13.5	25.3	6.2	5.8	6.3	5.6	12.3	22.8	6.0	19.3	34.7	6.9
Brain	2.0	2.6	1.7	4.4	4.7	4.3	1.1	1.6	0.7	1.4	2.0	0.8
Breast		7.5	157.8		11.0	151.9		7.8	157.8		6.1	162.4
Eye	1.3	2.4	0.7				0.3	0.4	0.2	2.5	4.6	0.8
Genitals		9.6	6.3		3.1	8.1		8.6	5.8		12.8	6.1
Head, face and neck	59.2	104.2	31.4	37.3	92.3	15.5	46.2	95.1	17.4	87.9	118.0	63.9
Larynx	4.9	10.8	1.3	4.0	7.8	2.5	5.4	13.1	1.0	4.8	9.2	1.2
Liver	133.4	145.6	125.9	112.3	159.6	93.6	133.7	151.4	123.3	143.2	132.4	151.9
Lower extremities	2.7	3.7	2.1	2.7	4.7	1.9	2.0	2.4	1.7	3.6	4.6	2.9
Lungs	5.5	6.1	5.1	4.9	6.3	4.3	7.4	8.6	6.7	2.9	3.1	2.9
Mouth, tongue and throat	46.8	95.5	16.8	25.3	67.3	8.7	45.4	98.3	14.2	59.6	101.2	26.5
Ovaries			9.7			16.7			8.9			5.3
Rectum	42.9	54.9	35.5	54.2	79.8	44.0	39.8	50.6	33.5	42.6	53.7	33.8
Stomach	315.6	430.6	244.7	249.6	427.2	179.2	318.8	441.4	246.4	348.0	422.6	288.7
Upper extremities	1.9	3.3	1.1	1.3	1.6	1.2	0.9	1.2	0.7	3.9	6.6	1.6
Uterus			276.8			399.9			304.2			151.9

NATIVITY.

A comparison of the death rates according to birth place of mother shows the following, per 100,00 of white population:—

United States	48.3
Ireland	76.4
Germany	78.2
England and Wales	72.0
Scandinavia	31.1
Scotland	81.8
Italy	22.8
France	92.8
Hungary	31.5
Russia	25.7

AGE.

Death rate by sex at certain ages per 100,000 of population at corresponding ages.

	Under 5	5 to 14	15 to 44	45 to 64	Over 65
Total	1.3	0.8	20.5	194.8	454.3
Males	1.5	0.7	11.5	137.6	417.0
Females	1.1	0.9	29.4	253.0	487.6

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The Early Diagnosis of Cancer.

By WILLIAM L. RODMAN, M. D., LL. D.,
Philadelphia.

Pennsylvania Medical Journal.

I feel that it would be almost an insult to the intelligence of the Surgical Section of the Medical Society of the State of Pennsylvania to occupy the brief time at my disposal in simply rehashing textbook descriptions of cancer as it affects the various parts of the body. I prefer to take my cue from one of the first statements made by Dr. Wainwright in giving us his most excellent report. As I understand him 32 per cent of all superficial cancers have been noticed more than a year before their hosts consulted their medical attendants, and that said medical attendants kept such patients more than

a year before referring them for operation; that in 52 per cent of internal lesions the patients went nearly as long before consulting the medical man and for about a year were held for observation and treatment before operation. This enables us to understand exactly why classical descriptions in nearly all textbooks necessarily refer to advanced cases when the symptomatology is so plain that he who runs may read.

I prefer to say something about the pre-cancerous stage. Dr. Wainwright has hinted that this is not only of importance but of the very greatest importance if we are to make any material advance in the operative surgery of malignant disease, and to rescue surgery from that obliquity which I may say almost properly rests upon it today because of statistics

following belated and injudicious operations. It can only be done by operating early, or if possible to do so, in the precancerous stage. Although I have not read it in twenty years, it impressed me so forcibly when I did read it that I think I can almost recall what Butlin said of the operative surgery of cancer of the jaw. He says, "Battles, shipwrecks, railway accidents, are mild horrors in comparison to the statistics of late operation for malignant disease of the jaw."

We will begin with epithelioma of the lip and tongue. It might be well to recall the fact that statistics show that of all carcinomata in the human body, more than 35 per cent are in the stomach; 25 per cent in the uterus; 25 per cent in the breast; and 15 per cent are in other parts of the body. In the first place I would like to emphasize the fact that, while cancer of the lip is usually an affection of advanced years, we have too many cases in comparatively young subjects to ignore them altogether. Undoubtedly the vast majority of cases occur after fifty, but a reasonable number of cases occur prior to that age, particularly in those who have been excessive smokers and use a short clay pipe,—in other words, have subjected the lips to unusual and prolonged irritation. The diagnosis of epithelioma of the lip is very easy. The point I wish to insist upon in connection with this lesion is the tendency to fairly early involvement of the lymphatic glands of the neck, not only the lymphatic glands of the corresponding side, but of the opposite side as well. I believe that a majority, of not only physicians but good surgeons, think there is not a very great tendency to glandular involvement in epithelioma of the lip. Now such a mistake was made in the last case of the kind I saw. The patient had been operated upon elsewhere four or five months before for cancer of the lip, and, while there was no recurrence *in loco* when I saw him last Friday, I found a tumor of the neck almost as large as my fist and the maxilla so involved at the angle that I removed the

entire bone. I, therefore, insist that no operation on the lip is a complete operation, I do not care how early it is performed, unless the neck is explored at the same time, not only on the corresponding but on both sides. Moreover it is better, very much better, to explore the neck and clean it out thoroughly before attacking the lesion on the lip. It is possible to express cancer cells while manipulating the primary lesion, and, furthermore, one is more apt to infect the wound if one operates on the lip first and the neck subsequently.

The operative surgery of cancer of the lip is the brightest chapter in the history of malignant disease; 80 per cent at least ought to be cured by operation even though there be a reasonable amount of lymphatic involvement. This statement is made on the authority of Butlin and I think that it is really too conservative, as more than that number should be saved.

Dr. Longenecker* said something concerning the fatality of cancer of the tongue. I wish to share his pessimism. My own experience has been most unhappy in respect to cancer in this situation. I have been able to save only two patients out of all those operated on; in other words, these cases have passed without recurrence the period of probable danger. One of them, indeed both, were fairly early cases without a great deal of glandular involvement. Cancer of the tongue has a precancerous stage. It is therefore the duty of anyone, when consulted by a patient with a limited leukoplakia which does not yield to treatment, or with syphilitic lesions which have left cicatrices, to advise a prompt operation which will nearly always, of course, prevent trouble.

Hitherto the surgery of this organ has been discouraging and better results can come only from attacking it in the precancerous stage, or at least in its incipiency. I have found the lesion in the vast majority of instances on the side of the tongue midway between the tip and the

*Some Considerations of the Cancer Problem, Journal, March, 1912, p. 428.

tonsil. But in not a small number of cases by any means it is situated near the tonsil. I have rarely seen cancer affect the tip of the tongue, and, in my judgment, ulcers here situated are very generally tubercular. I have occasionally, but rarely, seen it affect the dorsum.

Now as to treatment of cancer of the tongue. In my judgment, if the tongue is fixed and the buccal cavity is seriously infiltrated, operation is of no avail. If only a part of the tongue is involved and if there is a limited amount of buccal involvement, then, by splitting the jaw, swinging out the maxilla so as to get access to the tongue and the floor of the mouth, one stands a fairly good chance of cure. This operation, of Professor Kocher, really is an old operation revived. It does give the surgeon the best opportunity of attacking cancer of the tongue and, moreover, it makes entirely unnecessary preliminary ligation of the lingual, because we see and ligate them without any difficulty at all. I commend it to those who have not tried it. Removal of the tongue may be an extremely difficult operation; hence, one wants always to operate in such a way as to have plenty of room and free access to all diseased tissues.

As to cancer of the breast, I am going to point out what I think have been some of the errors made. In the first place nearly all physicians depend upon two signs in cancer, which frequently, even in advanced cases, are not present at all. One is pain and the other is retraction of the nipple. Pain is almost invariably absent for the first year or more of cancer of the breast. I do not know of any condition about the breast that is as painless as cancer. Benign growths, cysts, and involution mastitis, all give more or less pain. Cancer gives none.

Retraction of the nipple, at the very most, occurs in 51 per cent of all cases. In other words, it is due to pulling on the trabeculae of the areola and can occur only in those tumors situated *centrally*, which pull upon and depress the nipple. As a sign it is not without value, but its

value is only relative for not only will it be absent in practically one-half of the cases of cancer, but it is present in benign tumors, congenital deformities, involution mastitis, etc., in at least 6 per cent of all breast cases. So one may be misled by the absence of retraction in malignant disease and the presence of retraction in perfectly benign or inflammatory conditions.

Just a word about another condition which I think none of us recognized many years ago, and that is the so-called acute cancer. I am sure that I never saw such a case until about four years ago. Since then I have seen four cases. It so completely resembles inflammation in every way that Volkmann described it as carcinomatous mastitis. The first case I saw was treated as a case of mastitis, at one of the larger hospitals of Philadelphia, for weeks and months with ichthyol and other applications on the breast, the real nature of the lesion not being suspected at all. When I returned from my vacation and the patient was referred to me for consultation the nature of the case was very evident. It was a most extensive involvement of the breast and seemed, from the history, to have begun as a diffuse rather than a discrete process. In other words, all of the breast was involved practically from the very first. Operation was done simply for the relief of pain. The patient lived four or five months afterward. The second case I saw with Dr. Estes. I happened to see the patient at his clinic and as he is present he may possibly say something concerning the case.

I wish to say that these cases of carcinomatous mastitis do not occur in pregnant more often than they do in non-pregnant women. Of the four cases I have seen, three were in married women who had borne children, but none had borne children for twenty years or suffered miscarriages; all were about forty-five years of age. The process was diffused in all of them. My fourth case was in a pregnant woman and there the disease seemed to begin as a discrete process, and very similar to a case described by S. W. Gross

many years ago. It will be mistaken by the unwary every time for a violent inflammation of the breast. Now simple inflammations, I mean real inflammation, may be mistaken for cancer and some of the very best surgeons in the world have so mistaken them. So great a surgeon as von Langenbeck twice amputated breasts for supposed cancer and both contained nothing but simple abscesses.

Of all conditions, inflammatory or otherwise, the most difficult to recognize is, in my judgment, abnormal involution, or what is called Schimmelbusch's disease; also fibrous and glandular hyperplasia with retention cysts, the disease of Reclus, general cystic disease of the breast, etc. Abnormal involution may occur at any age, of course, but a vast preponderance of such cases will occur after 40, and from 45 to 50 more than at any other time; therefore, just about the menopause, or at the age when cancer is most likely to occur.

I wish to state it as my conviction, and to state it as positively as I can, that it is not possible for mortal man to differentiate between cancer and abnormal involution in more than three-fourths of the cases. I do not care how closely one studies the remaining 25 per cent he will not be able to make an accurate diagnosis before operation. The age of the patient, the fact that the trouble is more apt to be a little augmented about the menstrual period, that the breast changes in size, being larger one week than it is the next, may enable one to differentiate it from cancer. The difficulty is less when, as is frequently the case, the trouble is bilateral and there are cysts with dilated veins superlying them, felt here and there throughout the gland. The only safe rule is at once to advise removal of the breast or, at the very least, an exploration, when a frozen section is to be made. Even though a frozen section eliminates cancer but pronounces abnormal involution to be present, I now remove the entire breast as it is a *precancerous* condition and in perhaps 25 per cent of such cases is followed

by undoubted cancer. Its potentialities should therefore be recognized.

I have learned to have a great deal of confidence in frozen sections and have been prevented from going astray in a large number of cases by the use of them. In upwards of 50 of my cases there have been only two mistakes made by microscopists. One of them was in a case in which a clinical diagnosis of probable carcinoma was made in a woman 41 years of age. At the operation the microscopist reported the frozen section as benign. It was only ten days later, after a second examination was made from fixed specimens, that the microscopist reported the growth malignant, and this was revealed only after thirteen sections had been examined. I frankly told the patient, who was a sensible woman; recognizing that a complete operation ought to be done, she submitted to it the following day. I am glad to say that she is living and free from recurrence, three years after operation. The second case occurred when my customary pathologist was absent. A young man inexperienced in the method volunteered in his absence. He had never employed frozen sections before and hence reported a case of abnormal involution as malignant. Subsequent and more careful examination failed to reveal positive evidence of cancer.

I insist that these reports can be relied upon in the vast majority of instances. I shall give you the experience of a man who has done more of this work than anyone else. Dr. Wilson of the Mayo clinic writes me as follows:

"No positive diagnosis has ever been given on a specimen which subsequently proved to be not carcinoma. So far as we have any history of the cases, no negative diagnosis has ever been given on a case which subsequently proved to be carcinoma. This rather unusual record is probably due to the fact that the surgeon almost invariably removed the entire tumor with a bit of the surrounding breast tissue before submitting it to the laboratory. When the tumor is very large, of

course this cannot be done, but in such cases it is usually possible to make the diagnosis clinically. Cases positively diagnosed as carcinoma clinically are not included in the three hundred. If the tissue contains the pathologic evidence of carcinoma, it can be determined quite as well by a fresh stain as in fixed specimens."

That is emphatically my experience and I have known of more mistakes made with fixed than with frozen specimens. I could report a case of mine where the best pathologists in Philadelphia differed in a diagnosis; some thought it was sarcoma, many others thought it was carcinoma. The tumor was removed at the Presbyterian hospital and exhibited to the Pathological Society of Philadelphia. The pathologists could not agree; it was referred to a committee, and at the end of a year the committee could not agree. There you have an instance of uncertainty even when the fixed method is employed. Dr. Charles H. Mayo has expressed exactly the same opinion that Dr. Wilson and I have.

It is not worth while to say more than a word as to the treatment of cancer of the breast. We all agree that we have gone as far as we can in operative measures. More tissue cannot be removed and it must be by earlier diagnoses and earlier operations if we are to improve results. We should remember that cancer of the breast will be cured by operation in 80 per cent of all cases without coincident glandular involvement in the axilla, and only 25 per cent will be cured if there is palpable metastasis to such glands. Could a stronger argument for *early* operation be given? Taking all of my cases operated on since 1898, of which there is record, 67.5 per cent have passed the three-year limit, and 65.21 per cent the five-year limit without recurrence.

Just a word in regard to the diagnosis of carcinoma of the stomach. It is useless to speak of the ordinary symptoms or signs, as we are all familiar with them and with the fact that they are entirely unsat-

isfactory. I will speak of one or two new methods. I see my friend and colleague, Dr. Pfahler, is present and I wish to say that all of you who will be in the city this afternoon can spend your time most profitably in hearing his paper,* taking up the subject of early diagnosis of cancer and showing a new method. It can be done in a few cases by means of the flouroscope. Dr. Pfahler insists that there will be only a limited number of early cases in which the method may furnish valuable evidence. The growth must be on the lesser or greater curvature and in the neighborhood of the pylorus, if this sign is to be of use. If the tumor is well marked and the normal peristaltic wave interfered with one may suspect that a malignant lesion exists.

Now as to gastroscopy, when one remembers the fact that 80 per cent. of the gastric carcinomata are at the pylorus it may be seen that gastroscopy can not have a very wide field in the diagnosis of cancer of the stomach.

If a tumor exists at the cardia, or that end of the stomach, gastroscopy may at once reveal its presence. Those who have done most with gastroscopy recognize its limitations and admit that little can be accomplished in locating cancer of the pylorus, yet it is here that we have 80 per cent. of our cancers. Cancer of the stomach is without pain as a rule and the symptoms are so mild that the only way in which an approximate diagnosis can be made, in many cases, is by exploratory laparotomy; therefore, years ago, I insisted that in a man past forty, who has been losing weight and who has gastric symptoms, which do not yield in a reasonable time under medical treatment, the only thing to do is to resort promptly to laparotomy, and even then one may fail to recognize the nature of the lesion. Dr. W. J. Mayo says he has seen lesions at the operating table where he has been in doubt as to whether they were ulcers or cancers and that *three-fourths* of them have been shown subse-

*The Diagnostic Evidence Obtained by Means of the Rontgen Rays in Carcinoma of the Stomach, Journal, March, 1912, p. 432.

quently by the microscope to be cancer. He candidly confesses his inability to tell the difference between cancer and ulcer even when one is in his hand and he examines it carefully at the operating table. If he can not do it, no one can. Therefore, his rule is to excise all doubtful cases. I have insisted upon this course since 1900. Mayo writes me, "The main field for the Rodman operation, as we find it, is an inability at the operating table to tell a carcinoma from an ulcer. In three cases out of four, when we remove a suspicious ulcer, it proves to be a carcinoma and a number of cases after gastroenterostomy for supposed ulcer have developed carcinoma so quickly as to make it almost certain that it existed at the time of the operation." The only thing to do is to excise the pyloric end of the stomach; both ulcer and cancer are here situated in 80 per cent. of the cases. You can not possibly differentiate safely between them, and the danger is so great that you can not afford to take the chances. Further, the end results after excision are so much better than after gastroenterostomy that I think in five years there will be mighty few gastroenterostomies done for ulcer. It will be ulcers situated only in the inaccessible portions of the stomach that will be treated by gastroenterostomy. Ulcers at the pylorus are so potentially dangerous and their surgical treatment by excision is so satisfactory that it seems not only the ideal but the best method. At the present time we feel that the end results of gastroenterostomy are not what they ought to be. Practically every cancer has its origin in an ulcer. Shapesko examined 100 cases and found unmistakable evidence of preexisting ulcer in 90. Mayo found 71 per cent. of cancers undoubtedly preceded by ulcer. Mr. Moyihan, who formerly did not believe that ulcer was likely to undergo cancerous degeneration, has reported 72 (plus) per cent. of his cases as having been preceded by ulcer. By operating in the precancerous stage, when it is easy and satisfactory, there are good reasons for believing that one will get as good results as are now obtained in operations on the

lip or breast. Belated operations, such as all of us have hitherto done, have yielded the worst possible results.

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The Campaign Against Cancer in New England.*

The New England states generally show a higher death rate from cancer than any other group of states. This does not mean that New England people are more susceptible to this disease. Cancer is a disease of later adult life and it is well known that in parts of New England there are more old people proportionately to the population than in many other regions. Nevertheless, the death rates recently published by the U. S. Census Bureau have stimulated much activity in these states in the educational campaign for the control of malignant disease.

What are the facts upon which this movement is based? According to the report of the Census Bureau, in 1913 there were 49,928 deaths from cancer in the registration area of the United States, corresponding to a death rate of 78.9 per 100,000 of the population. All of the New England States have individual cancer death rates much higher than this. Connecticut's rate, which was the lowest of any of the New England states, was 85.1. Vermont's rate was the highest with 111.7, while the rates of the other states were correspondingly high, Maine having a rate of 107.5, New Hampshire of 104.4, Massachusetts 101.4 and Rhode Island 93.3. When these figures are compared with those of Kentucky, with a rate of 48, they indeed seem very high. They mean that 6,817 people died in 1913 in New England from cancer. But it does not necessarily follow that cancer is more common in New England than elsewhere. The Census Bureau attributes the high cancer death rates in certain districts to the relatively high age distribution of the population and the negligible amount of immigration. Translated into every-day terms, this means that in New England the proportion of people

*Press service of the American Society for the Control of Cancer.

over forty years of age, or at the cancer age, to those under forty, and so less liable to cancer, is greater than in other places. Yet there is no doubt that the cancer death rate in New England as well as in other parts of the country is much higher than it ought to be. Without question a large percentage of cancer deaths can be prevented by early recognition of the symptoms and prompt recourse to competent surgical advice and treatment. Cancer is not a hopeless incurable affection, as so many people wrongly believe. Those who know the facts believe that if the public can be properly educated in regard to the early signs of the disease and will act on this knowledge, the present mortality should be reduced at least half and perhaps two-thirds.

That New England is awake to this opportunity of saving lives is evident from the activity in several states. To protest against taxation without representation the patriots of Massachusetts dumped overboard the famous cargo of tea. Vermont medical men have become so concerned over the high cancer death rate of their state that they are going to hold a "tea party" of another sort and attempt to dump overboard the high death rate from malignant disease. While their action is not so dramatic as that of the patriot raiders they hope to prove that through its great ultimate benefit to the community it will be almost as patriotic. The New Hampshire State Board of Health has recently published sound advice in its Bulletin. In Maine an active committee of the State Medical Society is arranging public lectures and causing the publication of instructive articles in the newspapers. Massachusetts has a well organized branch of the American Society for the Control of Cancer, with headquarters in Boston. The Vermont State Medical Society has arranged a series of public meetings to spread the bad news of the high cancer death rate and the good news of the hope of controlling the disease by earlier recognition and prompt surgical treatment. Morning, afternoon and evening meetings will be held on Tuesday,

Wednesday, Thursday and Friday, June 8th to 11th, at Rutland, Burlington, Montpelier and St. Johnsbury. The Vermont State Board of Health will send its Secretary, Dr. Charles F. Dalton, to address each of these meetings and the American Society for the Control of Cancer will be represented by Dr. Francis Carter Wood, Director of Cancer Research at Columbia University, New York City, and by Dr. J. M. Wainwright, Chairman of the Cancer Committee of the Pennsylvania State Medical Society.

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Why We Should Have a War Against Cancer.*

It is a fact that cancer kills about 75,000 people in the United States every year. Any disease that causes such a high annual toll should command the careful attention of the government, the medical profession, and the people. The need for this careful attention is all the more imperative if both the morbidity and mortality can be very largely reduced by co-operation on the part of these three forces, i. e., the Government, its people, and their physicians.

The reduction that has been caused in tuberculosis is now a matter of history. There can be no doubt that similar well-directed and persistent activity would cause a similar effect in cancer.

The key to the reduction of cancer mortality lies precisely in this: That cancer always begins as a purely local disease involving a strictly limited area. Second, that this limited area is accessible in about four-fifths of all cases; and third, and most important, a commencing cancer practically always indicates its presence when it is still in its early, locally limited and permanently curable stage. In other words, the enemy that we have to fight is not the cancer, but the delay. Nearly 60,000 of our people die every year, not because they have cancer, but because they have waited till the cancer has become incurable.

The causes for delay are, first, that the people know little or nothing about cancer.

*From the Commission on Cancer of the Medical Society of the State of Pennsylvania.

The layman or laywoman does not know that certain evident signs and symptoms mean that cancer is insidiously creeping on them and will be fatal unless recognized and checked in time. So that a large proportion of our 60,000 unnecessary cancer deaths occur because the people do not know. If a woman has a right to kill another human being to save her own life when attacked, how much more has she the right to know that a fatal disease has begun its attack on her? A woman who loses her life at forty simply because she never knew that irregular vaginal bleedings indicated the presence of a cancer while it was in its early curable stage certainly has not had her fair chance at the hands of civilization. If our people are dying because they do not know, we, the doctors, must teach them. We must teach women that a lump in the breast, no matter how small or how painless, may be the starting point of a serious condition and must at once be investigated by a competent physician. We must teach women that irregular vaginal bleeding, the onset of a discharge, etc., may be early warning symptoms of cancer of the uterus. We must teach all people that a mole or a wart which begins to grow, bleed, or ulcerate, is a danger sign that must be heeded at once. There are similar early signs in other portions of the body that may forewarn people, and of which they should have accurate knowledge.

There is also a great field in the conditions marked by chronic irritation and the so-called precancer lesions. Recent statistics shows that in about 40 per cent of cases the cancer, the malignant disease, was preceded by long-continued simple disease or by some form of chronic irritation. In other words, a large proportion of cancerous people need not have had the disease at all if they had been forewarned and had their precancerous condition cured.

The second great problem lies with us as medical men. Are we as active in the treatment of precancerous diseases as we should be, or do we only too often put our

patients off with some placebo and advise them not to worry? Do we always insist on a thorough examination when a patient comes to us with symptoms that may mean cancer? When an early cancer is present, do we always lay proper emphasis on the necessity for proper treatment at once? Do we not too often advise the one course which can yield to disaster and tell our patients to wait and see what develops, i. e., wait till the cancer becomes inoperable? Unfortunately at the present time these questions must be answered to our disadvantage. A recent extensive investigation has shown that on an average the family physician has had his cases of cancer under observation for about a year before they come to a real attempt to cure the disease. Our attitude to cancer needs to undergo a radical change. The average of one year's observation must be cut down to a few weeks, or best, to a few days. Immediate attention to the precancerous condition, counsel in the doubtful cases, and immediate action in the positive cases, is the only proper service we can give our patients. To do this, we need a campaign amongst ourselves, too. A new and more efficient spirit must be created which will result in constant watchfulness to keep our patients from swelling the thousands of untimely and unnecessary deaths from cancer.

To arouse the profession fully to the necessities in the war against cancer, a movement has been started by which, during the present few months. State and County Societies all over the country are devoting special meetings to the study of cancer, and in addition, the vast combined influence of American medical journalism has been enlisted, and the Journal of the Kansas Medical Society has united with seventy-six other medical journals to provide for its readers special cancer numbers. It would seem from the number of journals co-operating that the message must be brought directly to every medical man. We are sure that in this way the interest of the medical profession will be aroused for years to come, and we are sure

that the time will be soon at hand when no blame for participation in the fatal delay can ever be laid at the door of an American physician.

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The Organization of National and Local Forces in the Campaign Against Cancer.

By CURTIS E. LAKEMAN, Executive Secretary American Society for the Control of Cancer.

The American Society for the Control of Cancer has recently urged that every state medical society take an active part in arranging meetings and in spreading among all members of the profession the latest knowledge of malignant disease. At the suggestion of the Cancer Committee of the Pennsylvania State Medical Society, many journals will devote their July issues to this subject. It has been pointed out that the American Society for the Control of Cancer might take this timely opportunity to state its view of the relations between the various bodies which are concerned in this campaign. The suggestion is welcome. If indeed a clear understanding can be reached as to the most effective division of functions and duties among the various organizations, national, state and local, interested in this subject, a long step will have been taken toward the conquest of malignant disease, in so far as that ideal can be approached by the practical application of present knowledge.

THE NATIONAL SOCIETY.

The American Society for the Control of Cancer sets up no claim of priority or originality in preaching to the public the necessity of early recognition and treatment of this disease. The organization was effected under the inspiration of numerous similar movements in this country and in Europe. From the first it has been inspired only by a sincere ambition to co-ordinate all existing forces into a single irresistible nation-wide effort to reduce the cancer death rate by imparting the necessary knowledge and inspiring the will to believe and act upon it. Those who

direct the policy of the society have no illusions that they are "called" above others to this task. They firmly believe that all sincere workers should unite in a single well considered national movement. If the present society fails to meet the requirements of such a movement it must give place to some agency that will do so, leading the campaign against malignant disease with as conspicuous ability and success as the National Association for the Study and Prevention of Tuberculosis has directed the war on consumption. RELATION TO THE PROFESSIONAL SOCIETIES.

While the Cancer Society found its first impulse in the work of a committee of the American Gynecological Society, the movement was broadened at its very inception by the appointment of organizing delegates from the American Surgical Association, the American Dermatological Association, the Association of Pathologists and Bacteriologists and practically all the similar special organizations which met in Washington in May, 1913, as the Congress of American Physicians and Surgeons. Definitely launched in New York on May 22nd, 1913, the movement received within a few months the official endorsement of the American Medical Association, the Clinical Congress of Surgeons, the Western and the Southern Surgical and Gynecological Societies and a number of sectional and state organizations. All these professional bodies have endorsed the design of the National Cancer Society as expressed in its constitution:

"To disseminate knowledge concerning the symptoms, diagnosis, treatment and prevention of cancer, to investigate the conditions under which cancer is found and to compile statistics in regard thereto."

RELATION TO CANCER RESEARCH.

It will be seen that this purpose comprises not only the conduct of an educational campaign but the gathering of information in regard to this disease. In what relation, then, does the society stand to the various American Cancer research

institutions and workers? The answer is that the society does not contemplate the prosecution or support of biological research, already so ably pursued under the auspices of our leading universities. With these workers in the field of pure science mutually helpful relations have developed. Indeed a notable collective expression of their attitude is regarded as a very corner stone of the educational movement. A few years ago the eminent laboratory students placed on record in the transactions of their official organization, the American Association for Cancer Research, their conviction that pending the discovery of the ultimate nature and cause of cancer, a far more effective dissemination and utilization of the vast store of present knowledge of the disease is urgently called for. Formed to carry out this very object the "Control" Society depends upon the constant support and co-operation of the institutions represented in the "Research" Society. Many of the foremost American students of cancer are prominent in the membership of both organizations. Machinery is thus provided for the wider dissemination among the profession and the people of the essence of the newest knowledge of malignant disease, fresh from its laboratory sources.

RELATIONS TO STATISTICAL INVESTIGATIONS.

The Society does, however, contemplate original work in the collection and collation of statistical data, and will expand this feature of its program as fast as its resources permit. The statistics of cancer mortality need to be improved both as regards their collection and their publication. The merest suggestion by the Society to the U. S. Census Bureau has been sufficient to initiate a notable advance in this respect. With the greatest possible interest and zeal, Mr. Harris, the late director of the census, and his successor, Mr. Rogers, have undertaken the preparation of a special report on the cancer mortality of the U. S. Registration Area in 1914. The number of deaths will be stated in full detail under some thirty

titles of organs and parts of the body affected, instead of, as hitherto, merely under the six general groups of the international list. The Imperial Cancer Research Fund has long urged that it is only on the basis of such detailed data for the various organs that a true conclusion can be reached as to whether or not cancer is increasing. For the first time in the United States the data will now be at hand, as it is in England and Wales through the reports of the Registrar-General, for the prosecution of such inquiries.

The census bureau will also, for the first time in this study, make a distinction between returns based on certain and on doubtful diagnosis. To secure the additional information needed for this distinction the bureau is sending tens of thousands of letters to physicians who have certified deaths from cancer asking whether the diagnosis was based on clinical findings alone or was established by surgical intervention, microscopical examination, or autopsy.

All this, it will be realized is a large amount of work for even a government bureau to undertake. Much of it should be done in the first place by the registration offices and the boards of health of the several states, where the original certificates of death are filed. It will be the duty of the American Society for the Control of Cancer to urge upon the various state officials the need of undertaking this work in order to insure the permanence of the advance in the statistical study of cancer which has been inaugurated by the census bureau.

But the society is also interested in special statistical studies of the geographical, racial and occupational distribution of cancer, and above all in collating, upon a uniform plan, the records of surgical treatment of the disease in the leading hospitals. It is important that an authoritative answer be available for all who ask just what percentage of success is to be expected in the treatment of each phase and each stage of this multiform disease. All such studies the society regards as ful-

filling its fundamental purpose and in pursuing them it is everywhere receiving the most cordial encouragement and assistance from statistical offices and from the best hospitals and institutions.

RELATION TO EDUCATIONAL AGENCIES.

The important and clearly established lessons derived from such studies of the sources of information must be given to the public. The society has undertaken to do this directly, through its publications, its regular articles for the newspapers and its lectures. But in the large view it can best secure this object by enlisting the co-operation of all appropriate existing agencies which conduct educational work. Foremost among these are the state and local departments of health, especially those which are devoting an increasing share of their energies to the spreading of the gospel of health by bulletins, exhibits and lectures. In the same category must be included the committees on public instruction which in many states are conducting admirable campaigns of health education under the auspices of the state medical societies. Toward all these agencies the society stands in the relation of the "producing" to the "distributing" end of a manufacturing business. With its wide outlook over the national field it is in a strong position to provide statistical material, to receive and pass on new knowledge, new experiences, new methods which have been found valuable in one field and should be used in others. In another view the society may take the position of "middleman" between the research workers and statistical students producing new facts about cancer at the sources of knowledge on the one hand, and on the other the many agencies, general and local, which will bring the practical bearings of this knowledge, new and old, directly home to the people. In general, then, one of the most useful functions of the society is to act as a bureau of information and clearing house which is at the service of all workers and institutions interested in the study and control of cancer.

RELATION TO STATE COMMITTEES.

The relation of the National Society to similar movements within the various states should be clear from what has been said. In no case will the society seek to set up local agencies to parallel work already adequately organized under the auspices of state medical societies and boards of health. Provision is made for local committees to be organized under the supervision of the resident directors of the National Society wherever no state or local agency is in a position to undertake the work. Such groups will not be formed, however, except under full agreement with present state agencies. Where, as in Pennsylvania, under Dr. Wainwright, and similarly under the auspices of state medical societies in Maine, Wisconsin, Kansas, Colorado, Louisiana, Texas and many other states, active local committees are at work, every effort will be made to assist these groups in the manner already outlined and so far as the constitutional limits of size permits to secure from them representative delegates to the governing council of the National Society. At least one director from each state will eventually be chosen to act as a local correspondent who will inspire and stimulate work in his own state while at the same time assisting in formulating the general policies of the National Society.

RELATION TO OTHER GENERAL COMMITTEES.

It is an earnest of the good feeling and harmony with which the cancer campaign is evolving toward a single coherent national movement to consider the high degree of integration with other national agencies which has already been attained. Some of these had begun effective work long before the present society was established. Aside from such admirable local campaigns as that of the Pennsylvania commission and the work inspired by Dr. C. C. Carstens in Michigan, the Clinical Congress of Surgeons of North America had in the field an active Committee on Cancer under the chairmanship of Dr. Thomas S. Cullen of Baltimore, the other members being Dr. Simpson of Pittsburg

and Dr. Howard C. Taylor of New York. This committee, as is well known, caused the publication of widely read and influential popular articles by Samuel Hopkins Adams. It is instanced merely as indicative of the get-together spirit that animates the National Society that all three of these men naturally took their places as members of the executive council of the new association. Subsequently the American Medical Association appointed a cancer committee representing its council on health and public instruction, and again to avoid duplication of effort the same men were made members of that committee. Dr. Frederick R. Green, the capable executive of this council of the American Medical Association, has been from the first a director of the Cancer Society, and has given invaluable advice and co-operation in its publicity campaign, printing every week in the press bulletin of the A. M. A. a popular article on cancer prepared by the society, which thereby reaches 3,000 or more editors in all parts of the country.

A similar identity of committees has been effected in local fields, especially in Minnesota, and is typical of the desire to carry on everywhere a well co-ordinated national campaign which shall embrace representation from all the principal local agencies and shall thus move forward with absolute harmony and unity of purpose of the accomplishment of its difficult but glorious ideal—the progressive reduction of the mortality from this historic scourge of mankind.

—R—

"Article of Faith" Concerning Cancer—A Platform Upon which to Unite in the Campaign of Education.

*During the four-day Cancer Educational Campaign, held under the auspices of the Vermont State Medical Society, June 8-11, 1915, Dr. William Seaman Bainbridge, of New York City, presented the accompanying twenty-one "Articles of Faith" at several sessions. They form the conclusion of a paper entitled "THE CANCER PATIENT'S DILEMMA. A Plea for the Standardization of What the Public Should be Taught in the Campaign of Education Concerning Cancer," which Dr. Bainbridge read at one of the sessions, and which appears in full in the Cancer Number of the New York Medical Journal, July 3, 1915.

(1) That the hereditary and congenital acquirement of cancer are subjects which require much more study before any definite conclusions can be formed concerning them, and that, in the light of our present knowledge, they hold no special element of alarm.

(2) That the contagiousness or infectiousness of cancer is far from proved, the evidence to support this theory being so incomplete and inconclusive that the public need have no concern regarding it.

(3) That the communication of cancer from man to man is so rare, if it really occurs at all, that it may practically be disregarded.

(4) That those members of the public in charge of or in contact with sufferers from cancer with external manifestations, or discharges of any kind, need at most take the same precautionary measures as would be adopted in the care of any ulcer or open septic wound.

(5) That in the care of patients with cancer there is much less danger to the attendant from any possible acquirement of cancer than there is of septic infection, or blood poisoning from pus organisms.

(6) That in cancer, as in all other disease attention to diet, exercise and proper hygienic surroundings is of distinct value.

(7) That, notwithstanding the possibility of underlying general factors, cancer may, for all practical purposes, be at present regarded as local in its beginning.

(8) That, when accessible, it may, in its incipency, be removed so perfectly by radical operation that the chances are overwhelmingly in favor of its non-recurrence.

(9) That when once it has advanced beyond the stage of cure, suffering in many cases may be palliated and life prolonged by surgical and other means.

(10) That while other methods of treatment may, in some cases, offer hope for the cancer victim, the evidence is conclusive that surgery, for operable cases, affords the surest present means of cure.

(11) That among the many advances in and additions to cancer treatment, the

improvements in and extensions of surgical procedure surpass those in any other line, and fully maintain the preeminent position of surgical palliation and cure.

(12) That there is strong reason to believe that the individual risk of cancer can be diminished by the eradication where such exist, of certain conditions which have come to be regarded as predisposing factors in its production.

(13) That some occupations, notably working in pitch, tar, paraffin, analin or soot, and with X-rays, if not safeguarded, are conducive to the production of cancer, presumably on account of the chronic irritation or inflammation caused.

(14) That prominent among these predisposing factors, for which one should be on guard, are: general lowered nutrition; chronic irritation and inflammation; repeated acute trauma; cicatricial tissue such as lupus and other scars, and burns; benign tumors—warts, moles, nevi (birthmarks), etc.; also that changes occurring in the character of such tumors and tissues, as well as the occurrence of any abnormal discharge from any part of the body, especially if blood-stained, are to be regarded as suspicious.

(15) That while there is some evidence that cancer is increasing, such evidence does not justify any present alarm.

(16) That suggestions which are put forward from time to time regarding eugenic, dietetic and other means of limiting cancer, should not be accepted by the public until definitely endorsed by the consensus of expert opinion. Such consensus does not exist to-day.

(17) That so far as we know there is nothing in the origin of cancer that calls for a feeling of shame or the necessity of concealment.

(18) That it will be promotive of good results if the members of the public who are anxious about their health and those who wish to preserve it will, on the one hand, avoid assuming themselves to be sufferers from one or another dreadful disease, but, on the other hand, will submit themselves periodically to the family phys-

ician for a general overhauling.

(19) That at all times and under all conditions there is much to be hoped for and nothing to be feared from living a normal and moderate life.

(20) That the finding of any abnormal condition about the body should be taken as an indication for competent professional and not personal attention.

(21) That watchwords for the public until "the day dawns" and the cancer problem is solved, are:—Alertness without apprehension, hope without neglect, early and efficient examination where there is doubt, early and efficient treatment when the doubt has been determined.

—————R—————

SHAWNEE COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Shawnee County Medical Society was held on Monday evening, June 7th.

Dr. P. T. Bohan of Kansas City, was with us and gave a very interesting illustrated talk on "Heart Irregularities." Dr. Bohan was for several years associated with Dr. James MacKenzie of London, and that perhaps better than anything else will give an idea of the excellence of the address. He made very clear some pretty obscure conditions, or rather ideas held in these conditions, and his talk on treatment was worth anyone's while to listen to.

This will be the last meeting we will have till fall, we have no meetings in July or August. The next one will be on the first Monday in September.

ARTHUR K. OWEN, Sec'y.

—————R—————

The addition of calomel, one part in 3000, to the tincture of iodine, is said to be prophylactic of septic infection. This preparation when diluted, one drachm to one ounce of sterile water or normal salt solution, is an ideal wound-dressing, and unapproachable when used internally in sore throat, bronchitis, tuberculosis, etc. For internal use the dose is one drop in a teaspoonful of sherry before each meal, and increased, drop by drop, to tolerance.—Therapeutic Notes.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - - - Editor

ASSOCIATE EDITORS—C. W. REYNOLDS, C. C. GODDARD, HUGH B. CAFFEY, O. P. DAVIS, W. E. CURRIE, ARCH D. JONES, K. P. MASON, H. N. MOSES, C. S. KENNEY, D. R. STONER, J. A. DILLON, W. F. FEE.

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The following committees were recently appointed by Dr. O. D. Walker, President:

COMMITTEE ON SCIENTIFIC WORK.

Dr. Chas. S. Huffman, Columbus.
Dr. J. D. Riddell, Salina.
Dr. Jas. W. May, Kansas City.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

Dr. J. E. Sawtell, Kansas City.
Dr. W. E. McVey, Topeka.
Dr. J. F. Gsell, Wichita.

COMMITTEE ON PUBLIC HEALTH AND EDUCATION.

Dr. C. C. Nesselrode, Kansas City.
Dr. M. Trueheart, Sterling.
Dr. T. A. Jones, Liberal.
Dr. M. T. Sudler, Lawrence.
Dr. O. D. Walker, Salina.
Dr. S. J. Crumbine, Topeka.
Dr. Emma L. Hill, Oswego.

—R—

The fact that seventy-six medical journals in this country are devoting one issue to the discussion of cancer suggests an intense interest in the subject. It also demonstrates the possibility of thorough cooperation in any endeavor which the medical profession may undertake—a condition which, if heretofore known to exist,

has not been appreciated.

It is not to be presumed that in this widespread discussion a radical cure for cancer will be made known. It is not presumed that any heretofore unknown facts in regard to cancer will be made known. It is to be hoped, however, that in this way that which is known will be more widely disseminated. It is to be hoped that every member of the profession will lend his support in whatever direction the most promising benefits lie.

There is one fact which stands out above all others in the consideration of cancer. It is the consensus of opinion, based upon experience as well as pathologic conditions, that all accessible cancers are curable at some time in their early development—that before a certain stage in their development has been reached a complete removal is not followed by recurrence. If this fact alone can be sufficiently impressed upon physicians everywhere the death rate from this disease will be considerably lessened.

It must not be too readily conceded that the fault always lies in the failure of the physician to recognize the importance of early surgical measures or to urge them upon the patient. It is too frequently the case that these growths have passed their precancerous stage before the physician is consulted, or that they have been treated by patented remedies or by cancer quacks until the safety period has passed. It is too frequently the case that a lesion which presents sufficiently positive evidences to the physician to demand removal does not impress the patient with that degree of importance.

The people are inclined to lightly esteem the serious views of their physicians upon what they regard as trivial ailments, although they have the utmost confidence in the skill and acumen of these physicians in the management of conditions of a most grave and critical character.

It is not only important that physicians should be thoroughly impressed with the necessity for early operations, but the people must be taught to look with suspicion

upon the early manifestations of a possible cancer. It would perhaps be well to revive and to strengthen the once very popular idea that even the most innocent looking and harmless lesion may "turn into a cancer."

—————R—————

In the matter of public health regulations the city of Topeka is far in advance of all western cities of its size. The people as well as the city officials have become enthusiastic on the subject of cleanliness. It seems incredible, but it is nevertheless a fact that there are less than two thousand flies in the whole city—the sanitary commissioner counted them.

It is the only city in modern times that has accepted its responsibility for the spread of venereal disease among its inhabitants. When, a few weeks ago, it was discovered that an indiscriminating disseminator of the *spirochaeta pallida* was abroad in the city, the mayor and the city commissioners made a special appropriation for the care of the unfortunate victims, and the milk inspector ordered all those who handle milk to secure a certificate of health, in order to prevent the further spread of the disease.

This is something of an advance upon the accepted theories of the transmission of this infection, but since the mayor and the chief of police are both newspaper men it must be authentic—they always get the news first. It will no doubt be a great relief to the minds of some of the recent victims of treponemosis to be able to place the responsibility for their predicament upon an infected milk supply.

—————R—————

Conceding the right of every citizen to reign supreme in his own domicile there must still be some restriction of his infringement upon the rights of his neighbor. He must confine his flies to his own premises or cease to propagate and harbor them. He must confine the odors of his garbage can or manure pile or remove them beyond the bounds of the inhabited district. But there are no laws to prevent his horses or his cattle from drop-

ping as much manure on the public streets as their necessities may demand. There it is readily dried out and scattered by the wind upon the sidewalks, into the open doors, and upon the passersby. Occasionally a sprinkling cart comes along and washes out the adhesive material so that it will be more readily triturated by the passing automobiles and, to still further facilitate its thorough distribution, the white wings carefully brush it up and put it in nice little piles near the curbing, where the first gust of wind will not fail to carry it to its destination—into your eyes, your ears, your mouth and nose. It fills your hair, covers your clothes; it bites and stings as you breathe it down; it makes your eyes weep tears of grief, and it kills the scent on your handkerchief, as the wind takes it up and swirls it round.

—————R—————

The following letter has just been received from Dr. Sawtell. Its a long way to Skagway and a long way home. We will feel more at peace when we see his jovial face again:

Skagway, Alaska, June 18, 1915.

Dear Doctor:

This is a wonderful country for sight-seeing, but traveling north all the time there is no news from the outside world. Heard by wireless that Bryan had resigned from the Cabinet and this is about all the important news I have had since leaving Seattle on the 6th of this month. I leave tomorrow for the interior, going about 1,000 miles further north and will get no news from the outside world of any importance until I get back here and then I will learn from the newspapers what things are transpiring at about this time. It is certainly true that there is no night here at this time of the year. You can read a newspaper all night. So street lights needed. They go to bed by the clock.

DR. SAWTELL.

—————R—————

Disgusting filthiness of the tobacco chewer's expectoration upon sidewalks and floors has had more consideration in the

adoption of anti-spitting ordinances than has the possible dissemination of disease germs. The tobacco chewer's saliva is a lesser menace to public health than the nummular sputa of the chronic consumptive or the salivary spatter of the acutely tuberculous. The latter, the most dangerous of all is not prevented by the most rigid enforcement of the laws now extant.

The Corral

By O. P. Davis

"If Thoughts Run Wild, Put Them in Bounds."

I am advised that this number of the Journal is to be devoted to the subject of Cancer, and that the Corral will be expected to join in the general program. When I protest my ignorance on the subject I am consoled by the thought that neither does anybody else know much about cancer that is new or strange. Even those who are writing and talking most voluminously about it will be found, when their stuff is boiled down and analyzed, to have brought the great mystery no nearer solution than of old.

* * *

I do not say that there may not be good cause for a concerted discussion of this important malady in the July journals. But I do make bold to say that to my mind such cause is not apparent. The subject, of course, is of vast importance and not to be disparaged, but its importance is so vast that it demands persistent and unremitting attention rather than the spasmodic and impulsive accentuation that pertains to revival methods. At any rate it is hardly necessary to use these methods on the medical profession, for medical men need little arousing to the importance of cancer, or to its apparently increasing prevalence. They have long since had their faculties of apprehension sensitized and quickened,—at least they who are likely to read the various articles about cancer in the journals this month. Just why, then, it is thought necessary to

put the pulmotor on the rank and file of physicians at this time, when they have shown no lethargy about cancer, is not clear to me. I think the medical man is fully as alive to the importance of cancer and its early recognition, and as fully awake to its horrors, as it is possible to make him. He is not a backwoods ignoramus, as some would depict him,—at least he who reads these periodicals is not,—and he is not in need of any billy-sunday exhortations along this line.

The true field for evangelism concerning cancer, if there is really as yet any gospel on this terrible subject, is among the laity, and the place to expound it, if I may venture to say so, is in the lay press, rather than in the medical journals. If a campaign of enlightenment about this disease might be started, working through the newspapers, the women's clubs, the picture shows, etc., as has been done with tuberculosis, something might be accomplished in time, though it would be gradual, as all educational movements are gradual. But this propaganda must be impersonal, and devoid of all semblance of individual exploitation, if it would carry conviction and merit confidence. In the advancement of salutary measures those who are in the saddle must not too obviously appear to be seeking their own selfish ends under the guise of something laudable.

* * *

I doubt if anybody tells us anything new about cancer this month, in any of the numerous medical periodicals that are giving their columns up to the subject. Nor will any writer, I imagine, propose any new cure. It has come to the point where it seems foolhardy to suggest any other cure for cancer than the knife. To do so, unless perhaps he be a German professor, is enough to label a man with an approbrious epithet. And the advancement of any new theory or explanation of cancer by anyone, unless he be on the faculty of Hop Johnsons or on the staff of the Junos, is enough to make the listener wink an eye and tap significantly

his incredulous dome. The acme of attainment in cancer investigation, up to the present moment, is about this: *Find the cancer before it gets started, and cut it out.* The key to the problem, as will be gathered from nearly every contributor on the subject this month, rests, so far as the individual case is concerned, on the early recognition of the cancer and the immediate removal of the afflicted person from it as far as possible. It is assumed that surgery, in its present degree of advancement, can cure a person of cancerous disease by excision if the case is taken early enough. If there is recurrence, the disease, forsooth, was not discovered early enough. By this sort of syllogism equal efficacy could be proved for any other procedure. Such sophistry as this is a common resort of the promoters of every specious therapeutic method.

* * *

But suppose we agree that early recognition is a *sine qua non* to successful treatment of cancer, by whatsoever method. How shall it be discerned in this early and hopeful stage? What are the serious obstacles in the way of its early apprehension, and what are the difficulties in the way of heroic measures after such discovery?

In the first place, there is not, as yet, a sure way of diagnosing cancer in its very incipency. Perhaps we shall soon have a satisfactory biological test, but even then, the seat of the cancer may not be disclosed. Many cancers are occult, and for a long period may produce no symptoms. When a cancer of the stomach or intestines, for instance, is producing symptoms, it is usually too far advanced for complete extirpation. Another difficulty lies in the fact that suspicious growth even when found in an early stage of development, often elicit conflicting or confusing reports from equally reputable pathologists and clinicians. And finally, even when the diagnosis is accepted, the measures to be adopted are not always so easily agreed upon. At this point there is more likely to be a concurrence of the

physicians than of the patient, especially when the ascendant dictum of the surgeon that to cure means to cut is asserted. The patient seldom consents with alacrity to an extensive mutilating operation until signs and symptoms have made the necessity obvious to him.

* * *

It is not strange that people shrink from the surgeon's advice when it is of such a desparately sanguinary nature and leads at best to mutilation or disfigurement. Resort to surgery in this disease as well as in many others has always been and will always be an expression of despair on the part of both physician and patient. Surgery has been termed the opprobrium of medicine. How can the ordinary person be made to appreciate the necessity for the total extirpation of an organ or limb when the disease is yet in such degree of incipency as to be of doubtful nature and of little or no inconvenience? And it is admitted that only in such early stage will operative treatment be likely to prove successful. What wonder that these persons, threatened by an infliction of a doubtful nature, resort to those physicians who will undertake their treatment by non-surgical methods?

* * *

I am not attempting to defend non-surgical methods, nor to depreciate surgical procedure. I think the surgeons have the better side of the argument at present writing, but I don't think they have much to brag about. I don't think their statistics are strikingly convincing. Nor do I think non-operative agencies are to be given over to the charlatans. The cancer quacks no longer confine themselves to these methods, but unscrupulously resort to any method best suited to their selfish ends. Indeed, a cancer quack does not get his stigmatization because of his therapeutic methods, but rather because of the mercenary and heartless motive which impels him to prey not only upon the real victims of this dreadful disease, but also upon those who have nothing more than a carcinophobia. And these

quacks, I regret to say, are not all professional outlaws, but some of them are men who recommend themselves very highly to their medical colleagues.

That there are men of high standing in the profession who think they have justification for a resort to medical agents in this disease is shown by an article in the New York Medical Journal, of May 15th, by Dr. S. P. Beebe, Professor of Experimental Therapeutics in the Medical Department of Cornell University, in which he discusses a treatment for cancer, and present a number of cases of sarcoma and carcinoma treated successfully by this method. I will quote briefly from the article:

"The therapeutic agent employed in this treatment is a complex one and it is believed that it has not been heretofore employed in the treatment of cancer. Seeds, roots, bark and flowers taken from a number of different plants, are prepared in the form of a powder, from which a poultice is made. This powder contains the following substances: *menyanthes trifoliata*, *melilotus officinalis*, *mentha crispa*, *brassica alba*, *anemone hepatica*, *viola tricolor*, *anthemis*, *fructus colocynthidis*, *lignum quassiae*, *urtica dioica*, *radix rhei*, *hedge hyssop*."

This remedy, it seems, is not original with Dr. Beebe, but has come to us from abroad, like many other medical wonders. We are told that an Austrian biologist and chemist, Alexander Horowitz, Ph. D., has cured some patients with it, and that Dr. Beebe and others have put the remedy to gratifying use in this country. This wonderful remedy has been used not only in poultice form but also as extract, internally, in pill form, from certain substances contained in the poultice, and in a liquid form, as an injection. It is true that Dr. Beebe proposes this remedy for inoperable cases, but how is a patient with a supposed incipient cancer to be prevented or discouraged from asking the employment of a remedy that is said to do such wonders in desperate cases? As a glaring example of vulgar polypharmacy the above remedy

puts all others of recent invention to shame. It reads like the ingredients of some old brew from a witch's cauldron. If anyone besides Dr. Beebe or Alexander Horowitz, Ph. D., had offered it, it would have met with the derision that it so richly deserves.

* * *

But the above is only one of innumerable agencies that have been brought forward for the relief and cure of cancer. And they have all been backed by testimonials of cures wrought. They have been of animal and vegetable and mineral derivation. The earth, the sea, the heavens and the illimitable ether have been drawn upon. The X-Ray and radium; the light of the sun and that invisible light that is not light,—the ultra-violet rays,—these are the most modern of the many buoys that medical science has flung to the countless bits of human flotsam floundering in the sea of despair. And these derelicts have snatched at all these with ever a new hope in their eyes. The more mysterious or fanciful the form of succor, the stronger its appeal. For to those who have so often met with failure, only the unusual and the supernatural will be looked upon with confidence. And who will say that all of these agencies have not had their successes,—perhaps as much success as even the knife? The x-ray was the agent, *summum cum laude*, for awhile, and had to its credit many real and imaginary cures. Later, radium climbed into prominent, and is still in vogue in some quarters. And these, however much they have been over-exploited, have beyond dispute cured many, and comforted many others by giving them a hope to hug, where hitherto they had been denied hope.

* * *

After all, there is not going to be much real headway made in the eradication of cancer until the actual cause of it has been discovered, or at least its modes of dissemination understood. Empiric methods of treatment are always disappointing, so far as disease prevention is concerned, but

great strides forward in prophylaxis have always followed the discovery of prime causal factors.

Nor are we as a profession able, at present, to go before the people with any great show of agreement in our knowledge or of confidence in our methods relating to cancer. We have no real grounds at this time on which to rest any substantial hope of diminishing the prevalence or of deflecting the incidence of this disease to any noticeable degree. An infinite amount of tireless research work must be done, on top of what has already been done. If the disease is indeed increasing, the foci of its lines of dissemination may yet disclose valuable pathogenetic clews. But there is good reason to doubt whether the apparently greater prevalence of cancer may not be due in large degree to faulty statistics, and to their still more faulty interpretation. Yet, whether increasing or stationary, medicine knows nothing, thus far, that will, in any noticeable degree, prevent the disease. We are in the presence of a world-old, unsolved riddle, but let us wait with patience for results from that great army of workers who are laboriously seeking out the hidden causes, which, like those of syphilis and malaria, have eluded the mind of man through so many ages. Some fine day, perhaps not far off, an illuminating chapter in the natural history of cancer will be written, and the way be opened for the prevention, and perhaps the cure, of this awful scourge.

R

An Endorsement.

The Judicial Council of the Jackson County (Missouri) Medical Society, on request, appointed a committee to investigate the institution of the Kansas City Skin and Cancer Hospital and the following is the report which they made in the Jackson County Bulletin:

THE SPECIAL HOSPITAL.

"In the great fight against disease special means and special institutions have to be established at times. This has especially proven so in connection with tuber-

culosis and with cancer, both of which are so prevalent and possess such a high mortality. Careful research for knowledge of the actual processes and progress of such diseases and the accomplishment of real protection and where possible the application of scientific treatment and the effecting of cures, are only to be attained where regular and systematic study and care can be given.

"In the prevention and treatment of tuberculosis much has been done. The future promises more toward its elimination. With cancer the problem grows more serious every day. Quacks and charlatans are recognizing its prevalence and the fear and credulity of the ignorant public who may be suffering from any ulcer or abdominal growth have taken advantage of the situation. As a result cancer doctors and cancer hospitals are numerous in most of our large cities. But few of them have as yet been established or are supported by the regular medical profession. To give the public a greater protection and to aid in the fight against quackery the establishment of a special hospital for the care and treatment of cancer by a member of the Jackson County Medical Society should receive our interest and support. Such an institution has been opened by Dr. Halsy M. Lyle at Twelfth and Michigan, Kansas City, Mo., and for it we bespeak a visit and every support it may deserve."

—————R—————

It is coming to be admitted that invalids are too much indoors and that relaxation in the open air, even though no exercise is taken, is extremely beneficial.

At the Battle Creek Sanitarium two immense outdoor gymnasiums are maintained for the purpose of luring semi-invalids into the open. Separate gymnasiums being maintained for men and women, it is possible to disregard the conventional dress and really get back to nature.

Swimming pools, volley ball courts, sand baths, and just plain, everyday basking in the sun are some of the joys experienced in these gymnasiums. Patients who

come to the Sanitarium during the summer frequently become tanned as brown as Indians and go home with almost the vim and endurance of the original Americans.

Trained instructors are in attendance at these gymnasiums in order that the exercises and play of the patients may be directed along correct, hygienic lines. Slight restriction is placed upon the patients, however, and they are permitted to enjoy the pastime which most thoroughly absorbs them between treatments.

—R—

A Valuable Mechanical Laxative.

In view of the many varieties of liquid petrolatum with which the drug market abounds, and the questionable quality that distinguishes much of it, physicians will welcome the announcement that Parke, Davis & Co. are supplying a product, under the designation of American Oil, that bears a substantial guaranty of purity and efficiency.

American Oil, P. D. & Co., which is distilled from American Petroleum, is a product of high specific gravity and great lubricating power. It is tasteless, colorless and odorless, and is guaranteed to be free from sulphur compounds, acids, alkalis and all harmful by-products.

American Oil is not a purgative. Neither is it a laxative in the general sense of stimulating the bowel by local irritation. Its function is that of an intestinal lubricant. It passes in toto through the alimentary tract, not a particle of it being digested or absorbed. It mingles with the food in the stomach and upper intestinal tract, with the result that the feces become thoroughly lubricated and pass through the lower bowel more rapidly than they otherwise would and are expelled from the colon more promptly and with greater ease. Not the least valuable feature of this liquid petrolatum is its protective effect on the stomach and intestine, it being well known that abrasions or irritations of the mucous surfaces permit bacterial infection and general toxemia.

American Oil may be taken with a pinch of salt or a dash of lemon juice, if the patient so desires, or it may be floated on a glass of water, wine, milk or other beverage. The dose recommended for adults is one or two tablespoonfuls morning and night, before or after meals, for the first two or three days. Later the amount may be diminished. To insure against possible mistakes, physicians will do well to specify "P. D. & Co." on their prescriptions.

—R—

Colgate University at its annual Commencement at Hamilton, June 22nd, conferred the honorary degree of Doctor of Science upon Dr. T. J. Bryan, of Chicago, formerly of the Illinois State Food Commission, and now Chief Chemist of the Calumet Baking Powder Co., in recognition of his distinguished scientific attainments.

Dr. Bryan did his collegiate work at Colgate University where he took his A. B. in 1893 and his Masters degree in 1895. After devoting the next few years to the teaching of chemistry, he went to Germany in 1899, where he studied at Göttingen, Heidelberg and Freiberg, from which later university he received the degree of Doctor of Philosophy in 1901. On his return to this country he taught chemistry at Wesleyan, Williams and the University of Illinois until 1906, when Governor Deneen, recognizing the urgent necessity for a strong, forceful character to direct the chemical work of the Illinois Food Commission, appointed him Chief Chemist of that body. This position he occupied for nearly eight years, resigning in 1913 to become chemist in chief of the Calumet Baking Powder Co. of Chicago. His retirement from public service to engage in commercial work was recognized in an official report as a notable loss of the state.

Dr. Bryan's record in office was marked by high efficiency along the really practical and useful line of raising the standard of food sold in his state and was characterized by a sound, normal com-

mon sense coupled with an exact technical knowledge, a combination by no means common to all officials of that period of fads and fancies of food control during the years following the passage of the Food and Drugs Act.

The conferring of an honorary degree of this character upon a scientist engaged in commercial work is unusual and is therefore all the more gratifying to those who know and appreciate the value of Dr. Bryan's work.

The university conferred eight honorary degrees in all. Among the recipients and the degrees given were, Acting Secretary of State Lansing, L. L. D., Benjamin Ide Wheeler, President of the University of California, L. L. D., and Frank M. Williams, New York State Engineer, D. Sc.

—R—

Mercuric Chlorid Poisoning.

H. G. Barbour, New Haven, Conn. (Journal A. M. A., Feb. 27, 1915), has experimented with the suggestion of Hall of the use of a reversal of Mayer's reaction for the precipitation of alkaloids in the treatment of mercuric poisoning, wishing to render mercury insoluble in the body. Hall proposes the employment of an alkaloid dissolved in a potassium iodid solution and has selected quinin as comparatively harmless and readily obtainable. In the proportions used, potassium iodid 7.35, quinin hydrochlorid 4.0, and water 480.0, the solution forms a precipitate with mercuric chlorid in dilute acids or alkaline carbonates. Greater interest however, attaches to its parenteral administration, in the hope of fixing the mercury that has already reached the blood and tissue. Barbour has tried this with negative results, and in test-tube experiments he has shown that the precipitate cannot be formed in the blood, at least in concentrations of mercuric chlorid in the blood as high as 1:1,000. The poison has a far greater affinity for the proteins, etc., in the blood than for any non-toxic remedy that can be found. Experiments on mice and rabbits also show the uselessness of the antidote. It is impossible to say how much

mercuric chlorid reaches the blood in cases of recovery in the human subject from mercuric chlorid poisoning. The saving effect of vomiting, purging, full stomach or other hindrances to rapid absorption must be considered.

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The Medical School and the State.

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Almost with one acclaim all who attended the recent dedication exercises of the Washington University Medical School remarked: "The plant is one of the most complete in existence. St. Louis gives promise of becoming one of the medical centers of the world." How does that sound to Kansans who have vied with the people of Missouri in the acquisition of all that is good?

There is in Kansas and in some other states as well, a feeling among the citizenry that the state should abandon all attempts at professional education. "The cost is too high," they say. Toward medical education especially, much contravention has been directed.

Missouri evidently stands among the states which favor medical education. Her greatest acquisition for higher education is now the completely equipped medical school of Washington University. Besides this institution, Missouri has two other medical schools of note—the medical school of her State University which conducts the laboratory sciences, and that of the University of St. Louis. Missouri is proud of these institutions. This pride could not be concealed by the best citizens in St. Louis as visitors were shown the massive, well equipped Washington University Medical School.

That in Kansas, on the other hand, there is in general a feeling against State support of medical education, is

apparently the case. Only meager provision for a medical school has been made, and it now exists only as a result of the desperate efforts of a few of the citizens.

What then is responsible for this difference of opinion regarding medical education? Certainly the citizens of Kansas desire as competent practitioners as do those of Missouri. Kansas has demonstrated her deep interest in the care and treatment of her indigent unfortunate victims of disease. Her generosity is seen in the large commodious hospitals for mental disorders, a sanitarium for tuberculosis, and numerous avenues by which public hygiene is maintained. Her laws respecting public health are as progressive as those of most other states. But when it comes to a medical school which should be at the very foundation of all state measures towards the maintenance of health and the care and treatment of the victims of disease, Kansas is very indifferent. This indifference is shown not only by many in the legislative and executive branches of our state government, but by many in the medical profession, and also by many men of affairs. In fact, perhaps, the greatest opposition has been voiced by those concerned in higher education. As far as I have been able to determine such opposition is not to any degree so current in Missouri. The medical profession is assuredly proud of its new Washington University medical school. The man of affairs has demonstrated his belief in medical education. The gener-

ous philanthropy of wealthy St. Louisans is sufficient evidence of this.

True, Missouri greatly exceeds Kansas in population. In fact the former, according to the last census has about double the number of people. Missouri's wealth is undoubtedly much greater than that of Kansas. Still the latter has not made one-half the progress respecting medical education as has the former. Missouri believes in it. Numerous wealthy citizens of her state, confident that that philanthropy concerned with the preservation and prolongation of life is the greatest, have generously contributed towards this end.

True it is that some men in Kansas have formed a nucleus for a medical school and that wisely in connection with the state university. Unfortunately this has not been munificently followed up either by the state or by private philanthropy. Again let me ask what is responsible for this difference of attitude?

Dismissing as I must, partly through ignorance of conditions as they are and were here and partly through expediency, many of the factors that may be responsible for this difference of opinion regarding the value of a medical school and its support, I want to call attention to one great discovery that some of the citizens of St. Louis made—if not their discovery, at least the application of it.

Mr. R. A. Barnes, a merchant, banker and philanthropist, left his estate for the foundation of a hospital. "A hospital for sick and injured persons, without distinction of creed under the auspices of the Methodist Episcopal Church South"—such was his request. Through the prudent administration of his trustees the estate reached the sum of \$2,150,000. The establishment of this hospital was the great concern of the trustees.

After much investigation through travel and advice from the world's greatest authorities on hospitals, it was unanimously decided that the most efficiently administered hospitals are those organi-

cally connected with medical schools. Such hospitals as John's Hopkins, the Massachusetts General, and the Presbyterian of New York are examples of the most efficacious, and each is closely related to a medical school. A clause in the contract between Washington University and Barnes Hospital shows at once the attitude of the Barnes Hospital Board of Trustees:

"That whereas the trustees have become satisfied, after a thorough examination conducted by them, that the efficiency of a hospital depends, in large part, upon the ability of its medical staff, and that a hospital can render better service to its patients when it has associated with it an organized medical school and scientific staff, laboratories, and dispensary."

Other hospitals had found this to be true, and the reason therefore could be summarized as follows:

(1) Medicine today is largely a laboratory science. In addition to the laboratory facilities necessary for the identification of microbes—which play such a large part in disease, other extensive and expensive equipments such as X-ray, metabolism apparatus, heart station, etc., are essential for the diagnosis and treatment of diseases in general. This indispensable laboratory can be secured only when closely coordinated with a medical school. Again, the manipulation of this complex equipment requires the services of a large and efficiently trained staff. This can be best arranged for in the highest class medical school.

(2) Medicine today has numerous specialties. Each specialty is in a stage of rapid development. In order that each specialty be properly taken care of, the full time and energies of at least one man as a director are indispensable. The director of each specialty must be a product of both extensive and intensive training. He must devote all his time to study, teaching and investigation along his particular line. Only by such qualification can real progress be made. And

only in the medical school of high rank can such men be found. Fortunate indeed is that hospital which is under the administration of such a staff.

(3) No lengthy dissertation is needed to demonstrate the fact that a teacher with all the most advanced methods of both physical and laboratory diagnoses at hand, going through the wards with a group of students following him, is far better equipped to deal with patients than otherwise.

Again a patient is fortunate indeed to have the services of an advanced student, who is eager to accurately diagnose the case. He will spare neither time nor means to arrive at his conclusions. Every available method will be used. Contrast this treatment with the rapid and superficial survey of the average busy practitioner. The patient soon realizes the great value of the student's services. Practically none object. Quoting from Brookings:

"Of thousands of patients who have passed through the Massachusetts General Hospital during the past ten years (which hospital is affiliated with the Harvard Medical School) we have a statement from them in writing to the effect that only one or two patients have ever objected to being used for purposes of instruction. The patients soon realize that a small group of four or five students gathered around the bed insures to them a thoroughness of diagnosis and treatment from the physician in charge which could be hardly expected under any other conditions."

Students in the senior year, then would serve as junior internes. Practically one year, which is now wasted, due to loose combination of school and hospital, would be saved.

It is a strange fact that hospitals learned early that associated training schools for nurses were indispensable, but have only recently learned—that is, practically and on a broad scale—that training schools for physicians are even more essential.

To sum up then—St. Louis learned through the efficient trustees of the

Barnes Hospital that an efficient hospital conducted on the highest plane must be closely connected with an equally efficient medical school.

Through the untiring efforts of that worthy citizen of St. Louis, Mr. Robert S. Brookings, and others, plans were laid for the establishment of a medical school that would meet the demands of the hospital. Washington University Medical School was chosen, but it was then in a class with the typical inefficient American medical college—more or less proprietary in nature. Realizing that in order to attain the ideal in medical education, and that no material progress toward that ideal could be made so long as an untrained faculty composed for the most part of busy practitioners and an almost negligible equipment were maintained, the former magnanimously resigned.

The resignation of the teaching staff was the beginning of the new St. Louis, as far as the medical education is concerned. The advice of the leading medical scientists of this country was then sought, advice regarding men, means, methods, equipment—all that concerns the establishment of a medical school of the first order. To quote from the report of the General Educational Board:

" 'Within the last three years,' in the words of the application addressed to the General Education Board, 'the Medical Department of Washington University has been completely reorganized as follows: The entire faculty resigned and successors, chosen on the advice of the leading medical scientists, were called from different institutions—the pathologist from the Rockefeller Institute, the physiologist from the University of Wisconsin, the biological chemist from Cornell University, the chief physician from Tuane University, the chief surgeon from the Massachusetts General Hospital.' "

Next in importance to this organic relation between the medical school and hospital, is that of co-operation. St. Louis wanted a children's hospital. So it was wisely decided that the three institutions

—Washington University Medical School, Barnes Hospital, and the St. Louis Children's Hospital—unite. The three interested parties decided to build a single plant. The money was raised, and the buildings and equipment are now complete. The plant, so far, has cost something more than \$2,500,000. Barnes Hospital has about \$1,000,000 endowment, and St. Louis Children's Hospital—the pediatric department of the medical school—has a fixed annual subscription of \$40,000. Contracts were drawn up between the three institutions that make them perpetually as one. The medical school then petitioned the General Educational Board of New York for aid and it generously responded with an appropriation of \$750,000 toward \$1,500,000 for the endowment of university departments in Medicine, Surgery and Obstetrics.

I. OBJECT LESSON.

From the experiences of St. Louis in the establishment of a great medical school and hospital the following are clearly significant and demand our most earnest consideration:

(1) In order to maintain a modern efficient hospital—one in which diseases may be diagnosed and treated in the light of modern scientific achievement—it must be organically connected with and administered by a well equipped medical school. The converse is also true. An ideal medical school must have associated with it an ideal hospital.

(2) Co-operation.—Owing to the expense now attached to the initiation and maintenance of an efficient hospital-medical school, it is almost prohibitive for one particular organization, unless unlimited in resources, to establish it. Several hospitals each with its own special endowment could build with one medical school a plant that would meet modern scientific demands. Private philanthropy a municipality, and the state could combine in such a movement.

(3) Only upon the establishment of such a plant will any material aid be obtained from private philanthropy. A medical

school and hospital whose staff is devoting all its time to teaching and research—advancing the science of medicine—in the long run will attract that philanthropy which is really worth while. Men of means are generally primarily interested in that philanthropy which has for its object the alleviation of the sufferings of mankind and they are not slow to recognize the character of the institution upon which such munificence should be conferred. As an example of this we need only to recall the quick response of the General Educational Board to the petition of the Washington University Medical School.

II. KANSAS AND A MEDICAL SCHOOL.

That Kansas should support a medical school, not necessarily primarily for the education of physicians but that *her own citizens may have the most competent medical attention obtainable is indispensable*. No citizen in Kansas would begrudge a tax in order to achieve this end. One of the greatest functions of the state is to guarantee its citizens, both rich and poor, the most competent care and treatment in case of illness. This can be accomplished only in the establishment of an efficient state general hospital. The highest efficiency can only be obtained when such a hospital is organically connected with a medical school. The two are inseparable.

Most unfortunate indeed has been the policy of Kansas—a common mistake among her sister states—of distributing her charitable institutions in various and remote localities instead of concentrating them in one place. Higher educational institutions likewise have suffered from such distribution. Politics, sectional favors, and what not have been responsible for this pork barrel manipulation. Not with an idea of censure do I call attention to this unsound and lamentable procedure. It is the common mistake of democracy. An example of reckless distribution is seen in the Topeka State Hospital, Osawatomie State Hospital, State Hospital for Epileptics at Parsons, State Home for Feeble-minded at Winfield, Larned State Hospital,

all of which are concerned in the care of mental disorders; State Tuberculosis Sanitarium at Norton, and numerous contributions to private hospitals for the care of patients suffering with diseases in general. According to the Fifth Biennial Report of the Board of Control of the State Charitable Institutions of Kansas—"The total expenditures of five institutions (this includes the first four named institutions and the Orphans Home which is now under another board the last reported annual expenses of which amounts to \$43,748.08) for the fiscal year ending June 30, 1914, from state funds and from the Bell estate fund amounts to \$815,325.89." The current running expenses were \$697,918.39. The difference between the two sums was used for repairs, improvements and new buildings. This however is more or less a constant expense. Add to the amount the current expenses of the Tuberculosis Sanitarium \$31,974.72; the new Larned Hospital, \$80,281.13—much of this was used in buildings; and the various amounts donated annually to numerous private institutions—\$100 to \$500 each and we gain some notion of the large contributions that through tax the citizens of Kansas are making for the care and treatment of these unfortunates.

Suppose now that all these institutions were in one locality together with a large general hospital for general diseases. The state then could well afford all the modern expensive equipment so essential to the diagnoses and treatment of diseases. For this special apparatus could cover the needs of all. A medical school of the highest plane could well and of necessity be maintained in connection with these hospitals. Men of special training devoting all their time to teaching, investigation and care of patients would conduct the various departments. At the head of that department concerned with mental disorders, a most competent psychiatrist would stand. Competency in this line as well as in others requires the most rigid extensive training, and then only by the most diligent study can the psychiatrist keep

abreast of the advancement in this specialty. But the state could well afford to pay almost any sum for the services of such a man. This man as professor of mental diseases would train other men along his line. These in turn could aid him in this great service. Infinitely more efficient would be the treatment of the insane. The cramped souls of these unfortunate victims silently cry for such services. A hospital for insane must not be a prison.

The state has also provided for the care and treatment of tuberculosis. This disease likewise demands the services of specialists of the first order. The earliest recognition of tuberculosis is in general equivalent to a cure. It is with this phase that we are economically interested. Now to diagnose tuberculosis in its early stages requires much special training. The most efficient diagnostician is he who can recognize it in its earliest phases. Would not one who has been thoroughly trained for this work and who is devoting all his time to advancing our knowledge respecting this disease both by teaching and investigation be of inestimable value to the state?

Advanced students keenly interested in the diseases of their patients and nurses in training would walk the wards instead of disinterested often ignorant attendants who must be well paid by the state for their services.

What could be saved then by virtue of this concentration of all the various hospitals in one locality, would be sufficient to establish and maintain the hospitals and a school of the very highest type. Kansas could then boast of one of the most efficient plants in existence. She could rest assured that her unfortunate wards were receiving the most skilled treatment and at the same time she could be sending yearly among her citizens highly trained physicians to care for the sick and provide for health measures.

All this could be accomplished with no additional expense to the state. Sufficient funds, I am firmly convinced, to meet this expense would be saved in numerous ways—the chief of which are salaries and

wages. In referring to the report again I note the following at one of the state hospitals: the total expended during the past fiscal year for salaries and wages was \$76,990.42. While the amount expended for commissaries was \$90,026.55. At another institution the first item is \$66,950.75, the second, \$81,947.55. These items were taken from two institutions selected at random. Doubtless the proportion of salaries and wages to commissaries are similar in the other institutions.

One may readily see the relation of salaries and wages to the cost of feeding these institutions. The total of the salaries and wages alone for the hospital at Topeka, Osawatomie, Parsons and Winfield during the past fiscal year was \$206,067.33. If these alone were combined would not the savings in this item be sufficient to pay for the services of a most competent teaching and hospital staff devoting all its time to the care and treatment of diseases and the advancement of medicine? This would be surely true with the free and efficient services of the students and nurses in training substituted for much of the often unsatisfactory hired attendants.

III. WHAT MIGHT BE DONE.

In calling attention to the conditions that are and contrasting them with the ideal conditions that might have been, I am entirely void of any personal criticism. No one is to be censured. It is an expression of American political ideals and is not by any means confined to the state of Kansas. To even anticipate that these institutions will ever be congregated is the height of phantasy. Let us however take conditions as they are and see if we can in any way aspire toward that ideal condition.

In the first place the maintenance of an efficient general hospital is indispensable to the best welfare of the state. Already munificent provisions have been made for the care and treatment of mental disorders, and tuberculosis. No difficulty is experienced in obtaining the necessary funds for the maintenance of these hospitals.

These diseases however constitute only a small fraction of the human ills. Is it not as much the function of the state to provide facilities for the care of all her indigent sufferers as it is to care for only certain portions of them? In other words we show class distinction so far as disease is concerned. Even of greater economic value is the care and treatment of general disorders for in most instances the sufferers are returned to society and again resume their economic burdens.

True the state does provide in a large measure for the sufferers of general diseases. At least 37 private general and 6 private hospitals for nervous diseases are to some degree the beneficiaries of the state.

A nucleus for a State General Hospital has been laid at Rosedale. Through a private bequest it was initiated. Its support, however, by the state has been meager indeed. In accordance with the trend of efficiency in hospital administration a medical school has been established in connection with it. To the state in general however the medical school alone exists. And when appropriations are asked for the support of this combined institution, invariably the amount requested is divided by the number of students graduating and then the familiar comment: "It costs too much to produce a doctor, let him go elsewhere for his training." It would be as consistent to discontinue the appropriations to all state hospitals on the ground that the salaries and wages are too high. After all the Rosedale Hospital is penalized for endeavoring to be efficient.

Now that a general hospital has been established, it should be unreservedly supported. The state should concentrate all its appropriations for the care of diseases in general upon this hospital instead of distributing them broadcast as it does now. Concentration makes for efficiency. That general disorders requiring state aid are far more prevalent than certain special disorders for which the state magnanimously provides, is unquestionably true. If the proper sense of proportion in appro-

priations had been carried out, the Rose-dale Hospital would have flourished. Instead of one or two buildings meagerly equipped and always overcrowded—providing funds are available—numerous buildings would now be seen—buildings well equipped, in which the care and treatment of disease would be conducted upon the most advanced scientific lines, by a complete staff of experts devoting all their time to the treatment of disease, teaching, and advancing our knowledge of medicine.

No—it is not primarily a medical school that seeks state aid. The medical school in connection with the state hospital guarantees efficiency of the highest order. The state demands this efficiency. Notwithstanding the brief existence of the Rosedale Hospital, the work it has so far accomplished in the care and treatment of worthy citizens of Kansas is beyond estimation. Numerous indigent citizens—broken down in health and spirit have received the treatment they needed. If one but views the incoming crippled children, perhaps a club foot, a crooked spine, a hair lip or some unsightly deformity, and then sees the results after treatment one feels that the state has been fully recompensed for all its expense in the correction of even one of these unfortunates. Truly Kansas demands such an institution.

Not only should the indigent poor be provided for but sufficient facilities should be maintained for the accommodation of all who desire treatment. Of course it is the custom for all to pay for treatment when they can afford to—hence the gradation from free wards to more or less expensive private accommodations.

In my consideration of the conditions as they are I have refrained from a discussion of the relative merits of the locations of the various state hospitals. All are not agreed by any means that Rosedale is the ideal location for a state general hospital and its associated medical school. Many claim that with the advent of the new union depot the population of Rose-dale and vicinity will rapidly increase and that after all it will prove to be the ideal

place. Others prefer Lawrence, Topeka, or Kansas City. The fact, however, is that it has been established at Rosedale. Another political axiom is—that once a state institution is established, it remains permanently fixed. After all, in this day and age of rapid and convenient transportation, location is not of such importance as formerly. Our greatest regret should be that all state hospitals are not congregated in one locality.

IV. MEDICAL SCHOOL AND STATE HOSPITALS.

I believe that all will agree that a medical school on the highest plane, both in equipment and faculty—the latter specially trained and devoting all its time to its respective sciences—will assure the most efficient hospital, and, further, that the school must be organically connected with at least one of our hospitals since in view of their scattered condition it cannot be connected with more than one. Of necessity this one should be the general hospital because of its varied cases.

Now what relation can the school bear to the other hospitals distinctly located so that all are mutually benefitted. In my opinion a very close relationship could and should exist with excellent results.

The psychiatrists at the various state mental hospitals should be on the staff of the medical school in connection with mental diseases. Perhaps, better still, one psychiatrist with a competent staff could well manage all such state institutions. The various hospitals should be teaching hospitals for have we not learned that a teaching hospital guarantees the highest efficiency? Each hospital should provide for internes and nurses in training. This is an age of specialization and every specialty in medicine requires its well trained physicians and nurses. Assuredly the services of advanced students, internes, and nurses would be far more desirable than disinterested paid attendants. Opportunities should be offered at these hospitals for specialization. The country is in sore need of well trained psychiatrists. We not begin this great work with one state

mental hospital and then later extend it to include all?

Likewise the state tuberculosis sanatorium—erroneously termed “tubercular,” this term having reference to anything possessing small nodules, eminences or warts, hence a warty sanatorium—should be closely related to the medical school in the manner just outlined. Let all state hospitals and the medical school have this relationship.

V. CO-OPERATION.

Let us not forget the value of co-operation such as St. Louis holds up as an example. Would it not be the most consistent plan to eradicate all sectionalism in the future establishment of state hospitals and congregate them around the general hospital? Would this not stand for the greatest efficiency?

Again the municipal hospital should seek a very close inter-relationship with the school. Fortunate indeed is that city which possesses the state general hospital and medical school, for then its own hospital can be made more efficient. This is one point that should greatly concern Kansas City, Kansas. Even the establishment of an ideal municipal hospital is of sufficient importance to warrant the complete amalgamation of Kansas City and Rosedale. In the light of modern medicine no hospital should be established in a locality where a medical school of high type exists without an intimate affiliation between the two.

Not only a state hospital and a municipal hospital can effectively co-operate, but private hospitals conveniently located may join in this co-operation with the medical school. In the vicinity of Rosedale-Kansas City are great industrial establishments such as the packing firms, employing an army of men. Do not these firms desire for their employees adequate medical aid? Is it not consistent to presume that they desire to co-operate in this matter? Then there are numerous individuals undoubtedly who would establish and maintain certain wards in the hospital. We must not lose sight of the fact that definite spe-

cialization is now taking place in the function of hospitals. Why not one philanthropy establish maternity wards; why not another, a heart station; and another, a building for infectious diseases; and so on? Eventually one of the greatest teaching hospitals in existence would be established. Each agency concerned in the establishment of its particular section of the hospital would maintain its organization so far as building, equipment and funds are concerned but would depend upon the efficient medical school for the staff.

To repeat, the most desirable philanthropy moves toward that institution most efficiently and scientifically governed. Even philanthropy from the outside may be approached and munificent returns may be expected. Note this item from the General Educational Board, when the three institutions at St. Louis sought financial aid:

“In compliance with the foregoing request, the Board appropriated \$750,000 towards \$1,500,000 for the endowment of university departments in Medicine, Surgery and Pediatrics.”

Truly Kansas has a magnificent opportunity to establish one of the most efficient hospitals and medical schools in existence.

Let us not lose sight of this golden opportunity.

VI. THE UNIVERSITY AND THE MEDICAL SCHOOL.

That the medical school should be a part of a university, is now a generally accepted fact. Of course, in Kansas as well as in most other states of the middle west it is the state university that rightfully assumes the function of medical education. It is not my purpose here to discuss at length the necessity of university control. The great renaissance in medical education during the past ten years has been due to the reassumption of medical teaching by the university. With the perfection of the microscope, the discovery of microbes and the subsequent establishment of the sciences thereof—bacteriology, protozoology, etc., came other new sciences funda-

mental to medicine, such as embryology, histology, neurology, each depending upon the microscope. Physiology, pharmacology, physiological chemistry, materia medica—all were placed upon a scientific basis consequent upon new ideas and the perfection of new apparatus. These are known as the fundamental medical laboratory sciences and with anatomy occupy the first two years of the medical curriculum. The realization that these subjects are true sciences in themselves as well as related sciences, and that they should be considered as any other science, is chiefly responsible for university control. Highly trained specialists and expensive apparatus and equipment are indispensable to the teaching of the medical laboratory sciences. And in no instance should these sciences be divorced from the university. All are so intimately related to biology, chemistry and physics, that to remove them from the atmosphere of these would be fatal. It is now imperative that the fundamental medical laboratory sciences be located in the direct atmosphere of the University.

Right here, I want to make this challenge, *Every earnest student who has completed these sciences under the conditions just outlined, and none but the most stupid will contend that a thorough knowledge of each is not indispensable to the study of medicine, will practice medicine in one way—and one way only.* In other words medicine today is a science, or a related group of sciences—a science which recognizes no allopathy, homeopathy, osteopathy and various other creeds. To maintain then that "I am 'path or a 'practor" of some kind is equivalent to saying that "I am not familiar with the science of medicine."

The clinical sciences, which are in many instances applied to laboratory sciences should, of course, be carried on in connection with the hospital—in the case of Kansas, at Rosedale. It is unfortunate again that all sciences constituting medicine are not located at one place. The staff teaching the clinical sciences should be highly

trained men devoting all their time to their respective sciences. It is this staff that will administer to the wants of the hospital.

So far in this discussion the function of the medical school has been considered only in its relation to curative medicine. And from this standpoint, I feel that if it succeeds in performing this function already outlined, the state will feel fully repaid for its support of the medical school. However, this is the least of its function. Another greater one is preventive medicine. Good health is the fundamental asset of all people. All else will follow. The medical school should be at the head of the state health. In its relation to the people and its physicians this can be accomplished.

VII. THE MEDICAL SCHOOL AND STATE HEALTH.

Of primary importance is preventive medicine. "An ounce of prevention is worth a pound of cure" is a familiar apothegm. The health of the people should be the state's paramount concern. That nations have perished through ignorance of hygiene is no longer questioned by the erudite historian. That the infected mosquito was directly responsible for the decline of Greece and Rome is extremely probable.

Every citizen in Kansas should be familiar with the sources of infection and disease. Every mother should know the measures required in the care and rearing of infants. For it is from the ranks of infants that Death claims its victims in appalling numbers. Children by hordes are robbed of that greatest heritage—health, manhood, womanhood—because of the inexcusable ignorance of parents. Succeed as many do in escaping the perils of infancy, then come the diseases of childhood, youth, and old age. In fact life is one long battle between self and persistent microbes. He who is familiar with their modes of attack is most likely to survive.

How can the University Medical School

disseminate such knowledge? How can it function as the head of health of the state?

This phase of the Medical School should be known as the Public Health Department. It should be in close affiliation with the State Board of Health. In fact there is no reason whatsoever but that the two should be one and the same. Public Health is a specialty and requires the services of well trained men. The Professor of Hygiene should perform all the functions now exacted of the Secretary of the State Board of Health. It would be but prolix to present arguments favoring such a plan. That a corps of specialists at the State University thoroughly familiar with every advancement in the sciences respecting preventive medicine, completely excised from politics, devoting all their time to problems of health, would serve the state far more effectively than the average board of health, is axiomatic.

With an ideal law specifying that the department of hygiene at the University shall perform the functions now generally ascribed to the state board of health, further organization would be as follows:

(1) Educational. This should include lectures and extension work of various kinds. Interesting and entertaining, illustrated lectures should be given in every hamlet of the state, demonstrating bacteria, manners of dissemination, modes of infection, methods of combatting, etc. Lectures of this sort can be made intensely interesting and effective. The other phases of extension work should be accomplished through publications, etc. Each district in the state should be organized into a Health League, the work of which could be made interesting as well as profitable. Not only through these leagues can the desired information be disseminated but through the school, the church—in fact through any organization. Besides knowledge relative to hygiene, information respecting patent medicine, fake institutes of treating, etc., should be widely disseminated. Courses of study should be arranged. The local health officer

could represent the University in this respect.

(2) Laboratory. A well equipped hygienic laboratory at the state university is imperative—a place to which any citizen of the state may send pathological and bacteriological specimens for analysis and diagnoses. Rabies, its diagnoses and treatment, preventive inoculation for typhoid fever, the diagnoses of all infections, these would come under the function of the laboratory. In connection with the engineering school it should make analyses and surveys of all waters used for internal use. Likewise with the department of chemistry and school of pharmacy all questionable drugs and foods may be examined and their fitness or unfitness for consumption determined. Is it not a valuable asset to any state to possess such a laboratory in which these various problems may be solved?

Again numerous problems of research will present themselves. Each state must in a large measure solve its own health problems. Not only need investigation be confined solely to man, but to animals as well. Not that we advocate that such a laboratory should primarily interest itself in the general diseases of the latter, however, at times certain epidemics do break out among the animals that require the services of the best equipped laboratories.

At stated intervals, all local health officers should be called together for a short course of instruction at the University. A week or two week's instruction yearly to health officers and others interested in these measures will suffice and at the same time prove to be of far reaching significance.

With such relations then of the University Medical School to the public health of the state, could any broad minded patriotic citizen contravene the support of a medical school? The amount spent yearly on the average state board of health can be made several times more effective as a department of the University. At the same time young men can be continually and thoroughly trained for future health

work. What greater asset could the state possess?

Kansas has done much towards this affiliation between the University and Public Health. Through the commendable efforts of the present Secretary of the State Board of Health great steps have been taken towards this ideal condition.

VIII. UNIVERSITY MEDICAL SCHOOL AND THE PHYSICIAN.

Next in importance to the general diffusion among the people of the state of knowledge relative to hygiene is the efficiency of the medical profession. Despite all preventive measures, people will become ill. The services, then, of thoroughly trained physicians are indispensable. Various disorders must be scientifically diagnosed and treated. In case of grave illness who would not give all he possesses for the services of a competent clinician? The state should be able to guarantee the efficiency of its medical licentiates.

This has been undertaken in some measure by certain laws prescribing the qualifications essential to procure a license. Statutes prescribing the minimum training of men for such important functions are far from satisfactory. Even if these laws should succeed in prohibiting insufficiently trained men from practicing medicine what provisions are made to encourage efficiency after the licenses are granted? What premium is placed on maximum training? How many physicians there are who make no further attempts to progress once this coveted paper is received from the examining board! Probably many desire to keep abreast of the various rapidly progressing sciences of medicine, but, owing to the heavy demands made upon their time and energy, find it possible to keep up with only a small portion of the progress. Some sacrifice much in order to go away from time to time for short courses and thus in a way keep up in their ever developing line of work. Now in what ways can the medical school of the state university be of service to this large body of men whose service to society is so important? Surely

service to the physicians of the state would be service to the people of the state.

Among the numerous avenues open for service of this sort are:

(1) Extension work: Through the state medical journal, each department of the medical school should contribute from time to time a digest of the progress made in its particular line. True, numerous medical journals attempt such a procedure, but the articles are so scattered through the various journals that a reference librarian would be needed to summarize them. Again so much is published that is of so little moment. Now should, let us say, the professor of medicine sift out from all this chaff the real kernels of progress and contribute them from time to time to the medical profession through the journal, what far reaching value it would have.

(2) Clinics and lectures at the medical school: At frequent intervals, the school should arrange for a series of short courses for physicians. These should be in the form of well arranged lectures and clinics. Schedules of the same should be sent out in due time.

(3) Library, laboratory, and hospital facilities: Almost prohibitive is the cost of books treating on medical subjects. Even one who has a lucrative practice can afford to purchase but few of the yearly productions of valuable treatises. Visit the libraries of country practitioners and for the most part antiquated books fill the shelves. Not only are medical books expensive but they are almost ephemeral so far as value is concerned—the average length of usefulness being about five years. so rapid is the progress of medicine. Like the numerous contributions appearing in journals, multitudinous books appear—owing to the rivalry of publishers—books of the most extravagant duplication.

The library of the state medical school possessing as it does the numerous volumes appearing from time to time, should be able on application to lend the books desired. It should furnish the physicians a catalogue of its contents and apprise

them from time to time of the appearance of new books, furnishing reviews of the same by competent reviewers if desired. Likewise, the journals—no physician can afford either money to take or the time to read even a portion of the current medical literature. The library on the other hand being a recipient of all journals can refer physicians to the desired information.

The laboratories should be closely affiliated with the medical profession. Every physician in the state should feel that the laboratory is his first and last resort in matters pertaining to laboratory diagnosis. Again numerous physicians from time to time, wish to pursue certain lines of investigation. Such work should be encouraged and every opportunity and facility offered for it. Some of the world's greatest contributions have resulted from such arrangements.

The hospitals likewise should serve the profession. The hospital should be the first and last resort for the diagnosis and treatment of extraordinary cases. The heads of the various clinical departments should have the utmost confidence of the physicians of the state. Both by training and devotion to their respective sciences the professors of medicine, surgery, gynecology, etc., should be the beacon lights. Of course this is to be expected of men who have had the necessary training and who are devoting all their time to study, teaching and research in the various clinical sciences. And only men who answer these qualifications can occupy these important positions. Thoroughly trained men devoted to their respective sciences as manifested by study, teaching, and research and giving all their time to these activities, are the only hope of the clinical medical departments. Unless this is done no medical school can hope to perform the important function it should.

The medical school should conduct, along with the regular summer school of the University, courses in the various clinical and laboratory sciences. Opportunities would thereby be given the medi-

cal profession to attain and maintain a high degree of efficiency.

To sum up then the relations between the medical school and the profession—the former can be of inestimable value to the latter through extension work, short courses, library, laboratories, hospitals, and summer school. Conversely the school will be vastly benefitted by the rich contribution that will come from the profession. This contribution will be in the nature of experiences, observations, and a variety of rare and interesting cases that will serve for teaching and research.

Is it not a fact that the medical profession itself will even magnanimously contribute financially to an institution which bears so close and beneficial a relationship?

Kansas has suffered to the extent of millions of dollars and untold numbers of lives as a result of vast influx of untrained men, charlatans, and fakers who have mercilessly exploited their diabolical wares upon a suffering and unsuspecting public. By first educating the public and by a close interrelation between the school and the physician these servants of Baal can be completely eradicated in time much more effectively than by laws stating only the minimum of training.

In order then to attain the highest efficiency both in curative and preventive medicine—a duty which every state owes to its citizens—a completely equipped medical school is indispensable.

In conclusion I shall take this opportunity to criticise this communication. Fault may be found with the various items of expense quoted. Figures without other knowledge are especially unsatisfactory things upon which to base conclusions. However, they were taken from the latest report and are used only for the purpose of illustration. In no wise has it been my purpose to reflect in any way upon those who are in control of the various state hospitals. There is no doubt in my mind but that these are as efficiently governed as can be under the existing conditions.

Shock, Its Nature and Prevention.

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In a recent book entitled "Anoci-Association" Dr. Geo. W. Crile has elaborately presented his ideas on the nature of shock and his methods for its prevention. The purpose of this article is to give, without any coloring of the writer's own opinion, a brief statement of Dr. Crile's views, first, concerning the nature of shock, and, second, concerning the prevention of shock in surgery.

I. THE NATURE OF SHOCK.

Dr. Crile states his theory thus: "Shock is the result of excessive conversion of potential energy into kinetic energy in response to adequate stimuli." The adequate stimuli affect the organism through nociceptors. Prolonged or excessive stimulation of these receptors by nocuous stimuli produces lesions in the cells of the brain, suprarenals and liver, which are the organs concerned particularly in the conservation and control of the energy of the body.

This interpretation is based largely upon the findings in the histological pathology of shock, experimentally produced. In the brain, suprarenals and the liver, Dr. Crile and his associates find the effect of shock upon the cells is the same: at first, hyperchromatism, followed by hypochromatism which is accompanied by exhaustion. In the latter process four stages may be recognized—(1) chromatolysis, (2) alteration in the nucleus-plasma relation, (3) rupture of the nuclear and cell membranes, and (4) disintegration of the cell.

As the result of pure traumatic shock these phenomena have been produced in dogs under anesthesia. In the nervous system the effects were most marked in the cerebral cortex and cerebellum, although they were also perceptible in the medulla oblongata and spinal cord. That this effect is produced through the nervous system and not indirectly through the blood is proved by two lines of evidence. First, there is no histological evidence of

shock in the brain of traumatized dogs in which the spinal cord has been severed between the seat of trauma and the brain. Second, if one of two dogs which have their circulation crossed is traumatized the traumatized dog alone shows the effect of shock in the brain cells. Furthermore, cell changes were found in traumatized dogs that had been over transfused to overcome the effect of cerebral anemia resulting from shock. The latter factor, therefore, is not the primary one in causing lesion in cells. It is, however, a secondary factor, since the prevention of cerebral anemia by transfusion tends to reduce the effect of shock. The inefficiency of ether to prevent shock is shown by the fact that trauma under curare caused no more serious changes in brain cells than did trauma under ether.

Emotional shock, also, affects the structure of cells. In rabbits which had been kept for a long period in constant fear of attack by dogs, without accompanying trauma or muscular exertion, the brain cells show practically the same changes as those which result from physical injury. Dr. Crile claims that ten per cent of the Purkinje cells were actually destroyed in rabbits that had been subjected to such emotional shock daily for two weeks. To quote the authors—"In cats the emotion of rage caused a striking increase in the output of adrenalin, but in cats subjected to fear and rage a month after the division of the major and minor splanchnic nerves, there was no increase in the output of adrenalin. * * * In rabbits acute fear caused a rise in temperature of from one to three degrees, excepting in thyroidectomized animals whose temperature remained subnormal."

The effect of many toxic substances upon the structure of the cells of the brain, suprarenals and liver was found to be the same as that of traumatic or emotional shock. Among such toxic substances and foreign organisms studied were streptococci, staphylococci, colon bacilli, gonococci and tetanus bacilli; placental extracts intravenously injected, peptones, leucins,

skatol, extracts of feces, and alien blood serum. Anaphylactic shock had similar effect. In all these cases there was a large output of adrenalin; but not so when the blood supply or the nerve supply to suprarenals had been cut off, or when the suprarenals had been excised. However, neither changes in the brain cells nor increase in the output of adrenalin followed the administration of urethane, nitrous oxide or morphine. Following the administration of ether, adrenalin increased in amount only during the stage of excitation. Morphine, on the other hand, prevented cell changes ordinarily consequent upon the administration of toxins and foreign proteids. Morphine, also, causes a reduction in the amount of adrenalin below normal. Strychnine causes the same brain cell changes as does trauma, and excites the secretion of adrenalin beyond normal.

In a particular study of inhalation anesthetics in their relation to shock, experiments have shown that, under approximately equal trauma, the changes in the brain cells are three times as pronounced under ether anesthesia as they are under nitrous oxide anesthesia, while fall of blood pressure was approximately two and one-half times greater under ether than under nitrous oxide. The general condition of the animal, also, becomes worse under ether. This is explained upon the basis that ether is a solvent of tissue structures while nitrous oxide interferes with the use of oxygen by the cell without attacking the cell itself.

Of various forms of trauma, crushing and tearing are the most potent in producing the histological effects of shock. Thermocautery of the abdominal and pelvic viscera is ineffective to produce shock because there are no receptors for heat stimuli in those organs. Slow and complete destruction of an entire cerebral hemisphere of a dog under anesthesia produced none of the effects of shock upon the cells of the brain. The regions of the body, therefore, vary in their shock-producing value according to the development

of the nociceptors of the region.

II. THE PREVENTION OF SHOCK.

In several earlier articles as well as in the recent book, Dr. Crile insists that there are two phases of shock which seriously affect the welfare of the patient, namely, the psychic and the operative. No single anesthetic meets the requirements for preventing both psychic and operative shock, hence anesthetics are selected and combined as required in particular cases.

Psychic shock, from which all patients suffer more or less while many suffer severely from it, arises from two sources—anticipation of the operation and struggle against the anesthetic.

The effect of emotional excitement, anxiety or fear, is illustrated in the history of a case of exophthalmic goiter which is particularly noteworthy. To quote, "The patient's brain was cut off from traumatic or psychic stimuli from the time she was anesthetized in bed till she was returned again from the operating room. There was no increase in the pulse rate at the end of the operation." A sister of the patient who accompanied the latter to the hospital knew of this operation and its seriousness, and "while waiting for the patient's return from the operating room her pulse rate rose to 124." The patient's pulse before the operation was 121; after the operation, 119. The sister's pulse before the operation was 84; after the operation, 124.

It is in exophthalmic goiter particularly that patients suffer from emotional excitement in anticipation of an operation. "The mere proposal that an operation be performed becomes a pathological excitation which may so increase the disease that the patient is even less able than before to make his mind up to submit to adequate treatment. On all sides the patient is beset by vicious circles, by pathological interactions. The ideal plan of approach, therefore, is to assure the patient that his malady is curable, that treatment can best be administered in a

hospital; that unoperative measures will first be tried, but that, if they prove inadequate, a simple operation will be performed; that it will be best to leave the final decision as to the advisability of an operation to his medical adviser; and that, since even the discussion of an operation is both unpleasant and injurious, it will be best not to open the subject again." For several days, then, fictitious administration of nitrous oxide is practiced so as to accustom the patient to this without arousing fears. Upon favorable occasion an hypodermic of morphine and scopolamin is given; nitrous oxide is added to the oxygen inhalation and the patient falls asleep without any excitation from fear or resistance. Dr. Crile lays great emphasis upon this phase of treatment for the prevention of shock, and also upon full familiarity with the patient and his condition as a whole, on the part of the surgeon.

In addition to the use of morphine and fictitious inhalation anesthesia to prevent psychic shock, Dr. Crile advocates strongly the use of nitrous-oxide-oxygen instead of chloroform or ether, because the strangling effect of beginning and the nausea following the anesthesia are by this means avoided, largely or wholly.

For the prevention of operative shock Dr. Crile emphasises first of all the importance of sharp dissection and gentleness in handling the tissues. Friction upon the organs by the use of gauze should be avoided as much as possible. Fascia or adhesions should never be torn. These should always be cut with a knife of razor edge. The "bloodless line" of adhesions should be followed with the razor edge with all possible patience and caution.

To reduce still more the operative shock Dr. Crile uses novocain as a local anesthetic in all tissues where shock may arise. He infiltrates the skin before the initial incision; then the fascia, cuts the muscle with a sharp knife, then infiltrates the peritoneum ahead of the incision. By the same means he then blocks the stimuli from the viscera by further infiltration

wherever necessary. This practice absolutely prevents muscular rigidity, and enables the operator to work upon the organs in situ. When, in spite of these precautions, evidence of shock begins to appear in the respiration and pulse during the operation, morphine and scopolamin may be administered in small doses till the desired effect is attained. When cerebral anemia is indicated hemorrhage must be particularly avoided, and in extreme cases transfusion of blood may be resorted to.

The postoperative discomfort, also, is given attention. To alleviate this quinin and urea hydrochlorid are injected at a distance from the wound in cases where it is not rendered unsafe by the presence or danger of infection.

As a result of the development and application of his technique of anoci-association Dr. Crile claims that the death rate from all operations in Lakeside Hospital was reduced from 4.3 per cent in 1908 to 1.9 per cent in 1912 and 1.8 per cent in 1913.

—R—

A Case of Apoplexy.

W. S. LINDSAY, A.M.M.D., Topeka, Kansas.

Read before State Society, Kansas City, May, 1915.

This paper is simply the report, with some comments, of a case of apoplexy of irregular and unusual character.

On June 12, 1914, Mrs. D. from Oklahoma was brought to me. The following history was elicited: Age 41; occupation farm work—not house work; hired house help and took her place with the stock and in the fields. She has also kept the bank account; was the leader in business with her husband in the management of a stock ranch.

There was domestic trouble of extreme stress. Patient had been separated from her husband, reunited, and later sent to Topeka without money and with a charge of infidelity.

The latter was reasonably untrue. Her claim was that she was deported to get rid of her and get her property.

Last December 18th felt an attack coming for at least twenty-four hours. During this time there was dull thinking, dizziness and at last unconsciousness. The tongue was bitten. This was followed immediately by a left hemiplegia which disappeared in a few months.

Since this seizure there have been three others during which consciousness was lost. There have also been frequent attacks of hysterical character which were relieved by massage. Menstruation has been absent three months. Mother ceased to menstruate at forty-one. At fourteen had severe attacks of headache. At eighteen was troubled with attacks called nightmare.

Patient is well nourished, but sleeps very poorly.

Examination shows normal eyegrounds, reflexes, urine and pulse. The face is extremely red. During the examination has hysterical attack. Is emotional, seems to desire sympathy and to have something done for her.

After the seizure there was normal reasoning, entire coherence, but an intensity of speech and frequent repetition of words.

Patient was admitted at the hospital, where she remained one month, during which time she was in bed. She complained of occasional dizziness but had no seizure, hysterical or otherwise. Has slept well and is quite cheerful.

She was then taken to a country home. During July and August she walked about the yard and seemed fairly comfortable except the dizziness, which recurred at frequent intervals and an increase of speech defect. Visiting her on August 20 I found erythromelalgia with much pain in the limbs.

I did not visit the patient daily. On September 9 I found right hemiplegia which had not been attended by a noticeable seizure.

On October 15 a convulsive attack occurred and on the following day I found exaggerated right tendon reflexes, blood pressure 100, with contractures of right

arm and hand. On December 1 a trace of albumen was found in the urine. December 12, report of Wassermann was negative. Speech reduced to "Yes, yes, no."

January 4 Doctor T. C. Biddle saw the case with me. At this time the left eyeball was much congested, protruding, and there was a patch of ecchymosis extending from inner canthus of left eye to middle of forehead.

January 27 an elliptical piece of bone was removed over third frontal convolution. The membranes protruded somewhat. On cutting the membranes there was a marked protrusion of the brain. The convolutions were separated with the index finger when about two ounces of straw colored fluid, with broken down brain substance was discharged.

Immediately there was collapse of the protrusion and the membranes were easily sutured over a silkworm drain, which was left to discharge through the original trephine opening. During the succeeding twenty-four hours several ounces of fluid thoroughly wet the dressings.

There was no odor to the discharge. There was no chill or rise of temperature following the operation and the wound healed promptly.

Within a few days the vocabulary was increased and the patient manifested a childlike pleasure at being able to talk so much. Attempts to have her write with the left hand were made on various occasions but always failed—the patient becoming excited and saying "No! No."

The redness about the orbit was lost. also the protrusion of the eyeball disappeared within a few days.

During three weeks following the operation the improvement in speech was marked; since that time it has not improved.

The condition here is reasonably attendant upon the apoplexy. The first seizure like many such, resulted in absorption of whatever extravasation occurred. The second outburst was gradual, but so much greater, that its results are still present.

An organized clot has doubtless formed

which has interfered with absorption of cerebrospinal fluid, as is the condition in many tumor cases. It is also possible that hypersecretion has occurred as an expression of disturbed brain metabolism.

The unsettled question as to whether the glandular structure of the choroid plexus secretes all of the cerebrospinal fluid or whether part is exuded from the perivascular system of nervous tissue is interesting in this connection.

Another point of interest is the low blood pressure recorded on October 16, about one month after I discovered the hemiplegia and when the pressure of spinal fluid was great enough to cause convulsive seizures.

Increase of cerebrospinal fluid coincident with the fall of blood pressure is thought to be due to the sudden dilatation of cerebral sinuses forcing out fluid which had accumulated in the ventricles and subarachnoid spaces.

It has been shown by a series of observations that brain extract will cause increase of cerebrospinal fluid by stimulating the epithelium of the choroid plexus, and that this is wholly independent of the fall of blood pressure. Also, that thyroid extract has an inhibitory effect on this function.

Patient is now taking thyroid extract, one grain three times a day. The blood pressure is 122.

MISCELLANEOUS.

Paronychia.

Isadore Seff and S. Berkowitz, New York (Jour. A. M. A., July 17, 1915), describe a technic for operating an paronychia which they have used in a series of 300 cases and which not only relieves the pain but also shortens the disease and prevents disfigurement. Acute and chronic cases are treated alike. The finger is first placed flat on the table and with the eye part of the probe held at right angles to the finger nail, the cuticle is very slowly pushed backward along its entire extent until the proximal portion of the nail ap-

pears. In some cases soaking the finger in hot boric acid solution facilitates this step. It is important to push backward against the cuticle and not downward against the nail, as in the acute cases the latter procedure is always painful. The probe is hooked under the diseased nail at the proximal portion, the edge of the nail is cut longitudinally for a distance of one-eighth inch and each side of the cut edge is grasped with either forceps or an artery clamp and the nail is cut transversely, the corners being completely removed. Pain is seldom produced, as the inflammation has separated the proximal portion of the nail from its bed. Attempts to remove more than this separated portion of the nail are very painful and the distal portion is left untouched to protect the underlying nail bed and is later forced off by the new growing nail. A wet dressing of boric acid solution is applied and the patient instructed to bathe the finger if it becomes painful in hot boric acid solution every three or four hours. An analysis of the cases is given. The *Staphylococcus pyogenes* was the predominant infection. Eighty-five per cent of the patients had no pain during the entire operation, 15 per cent had only a little discomfort. No anesthesia, local or general, was required in any case and dressings were removed in from ten to fourteen days.

—R—

Walker and Klein, in the Post-Graduate, describe a test which is said to aid the diagnosis of cancer and sarcoma. The urine of the patient is treated with tenth-normal iodine solution and hydrochloric acid. The color obtained is compared with two previously-prepared standards, one of which corresponds closely to the color of the urine of a malignant case after the test has been applied, and the other is about the color of normal or non-malignant urine after the reaction has taken place. Comparison of the color produced in the test sample with these standards indicates whether the disease is in an advanced state or whether it is incipient.—Druggist Circular.

THE JOURNAL

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W. E. McVEY, M.D. - - - - Editor

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Medical Education in Kansas.

The attitude of the Governor toward medical education in Kansas was very clearly set out in the letter accompanying his veto of the appropriation for a new building at Rosedale. There is no evidence at this time that he realizes the importance to the state of a well equipped medical school. He is unable to appreciate the benefits of such an institution to the people of Kansas and he estimates its economic value in terms of graduated doctors at so much per head. Because the physicians of the state have not fully appreciated the educational facilities afforded at Rosedale the Governor was able to make his figures show an apparent extravagance in this department. Had the clinical school been able to show a graduating class as large as its capacity would permit the Governor would have needed some other argument in defense of his veto. The reputation of the school and the number of students it enrolls depends very largely upon the attitude of the profession toward it. No matter how sincere and persistent the efforts of those in charge of the affairs of the school may be, if they are not supported by the good will and the interest of the profession, very little progress can be

made.

The last few sessions of the legislature have demonstrated that the demand for adequate appropriations for the medical school must come from a larger and more insistent part of the people than heretofore.

Dr. Sundwall, in his paper in this issue, has made an exhaustive analysis of the possible resources for medical research and for medical education in this state. One can only regret that among the great medical men who helped to make the early history of Kansas there was no one with such a conception of the advantages to future medicine in such a concentration of state institutions, and such an assemblage of material for study. One can only regret that since then there has been no one with an outlook into the future broad enough, and prestige and power strong enough, to have brought about such an ideal condition of things. Even now public health, in its broadest sense, with all its contributing factors, would not make an issue of sufficient importance with the people to successfully oppose the demands of those who see the more tangible benefits from a wider distribution of the state institutions.

Much can yet be accomplished for medical education in Kansas. Much more can be accomplished when physicians fully realize the advantages to be derived from a well equipped medical school in the state. We must ultimately get rid of the idea that the only function of a medical school is the preparation of young men to enter the practice of medicine. Under the old regime this was ostensibly the only purpose of a medical college, though often the greatest benefits were derived by the instructors in the school, not only in the way of business but in the increased proficiency which resulted from the enforced study and research. With the great advance in medical education the medical school has taken a new place in its relation to the profession. The instruction of students and the granting of degrees is, under the new regime, but one of its minor

functions. The faculties of the great medical schools of today are composed of men specially trained for research into the still unknown fields, men who are working for the advancement of medical knowledge, and men of experience and ability who have passed beyond the need of self promotion. And the greatest benefits from a great school, under the present regime, are available to the man in practice, the man who can appreciate the value of the discoveries that are being made and who can put them to the most practical and profitable uses. A full realization of this greater function of the medical school, by the profession and by the people, is particularly essential for the highest development of those schools which are dependent upon the state for support.

But in Kansas where the medical school is regarded as a sort of business college, at least by the politicians of the state, something must be done to demonstrate the need for such an institution, for in this state there is a most urgent and immediate need for larger appropriations. If we determine the view point of the average politician by that of the Governor, the solution of the problem is not difficult. The state has a right to question the policy of maintaining a costly institution for which, after ten years of existence, there is practically no demand. It is up to the physicians of Kansas to show that there is a demand for the school at Rosedale and that the work it is doing is appreciated. There are enough medical students in the state to tax the full capacity of several schools as large as the one at Rosedale and if the members of the Kansas Medical Society will use their influence in behalf of our own school they will do these students no injury and they will more than double the attendance there. Why should we not recommend this school? Is there any good reason why your son, or your friend's son, should go elsewhere for a medical education? Handicapped as it is by lack of funds, overburdened as it is with supervision, the teaching facilities at the medical school are excellent, the men who do

the work are competent, energetic and enthusiastic. Those who are graduated at Rosedale are as well educated, are as carefully trained and are as well qualified to practice medicine as those who are graduated in Chicago, St. Louis or any of the large cities. It ranks high with the other medical schools of the United States and its diplomas are recognized everywhere.

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The college-made doctor is a finished product. He is all there—that ever will be there—at the end of his college course. No matter how reputable the school that finished him he will never add anything to its credit. The men who accomplish things in medicine are always in the making—they are never finished. Members of the medical profession, more than other people, are inclined to judge the ability of a doctor by the school from which he graduated. It is an absurd thing to do. A man in the practice of medicine is only what he proves himself to be. There are plenty of failures among the graduates of the best medical schools in the world. The man who does not study as hard after he leaves school as he did in school will never rank very high among capable physicians.

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In a recent publication there appeared an article referring to a certain doctor who had exhibited some "quack" instincts and in explanation it was stated that "he was a graduate of a low-grade school that is now out of existence." It was further stated that he had practiced for a quarter of a century. If we are to determine the grade of a school by the present standard, most of us who graduated twenty-five years ago received our degrees from low-grade schools many of which are now extinct. Even the man who presumably wrote the article referred to is a graduate of a low-grade school which is now out of existence, but no one would now have the temerity to question his ability or to call him a quack.

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The proposed addition of a year in the hospital to the regular medical course,

which the Council and the Association have had under consideration for several years, will soon cease to be a matter of much concern. Either because they appreciate the advantages of such a course or because they believe it will ultimately be required, a quite large per cent of graduates are taking the hospital year of their own volition. Fifty per cent of the 1915 graduates of one of the western schools accepted hospital appointments for one year or more.

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The very marked advance which has been made in medical education has shown remarkable changes in the type of men taking up the study of medicine. The medical student of yesterday was ambitious for his degree so that he might get into the practice as quickly as possible. The medical student of today is ambitious to acquire all the knowledge of medicine it is possible to obtain, with apparently no concern for the time consumed and no thought for the practice he expects to enter.

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The degree which, in this country, has been conferred upon the graduate in medicine has heretofore been recognized only as an academic degree. Now that the requirements for entrance upon the medical course generally include two years of college work, and a bachelor's degree is conferred after completing two years of the medical course, it would seem that the degree of Doctor of Medicine should be entitled to rank in the same class with other Doctor's degrees.

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Dr. E. E. Uhl of Baldwin spent June and July in attendance at the Chicago Polyclinic.

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Dr. Katz in Trouble.

The following appeared in the Topeka Capital a few weeks ago:

"The first big gun in the United States government's war on wholesale traffic in morphine and other drugs in Kansas, was

fired yesterday at Wichita, with the arrest of Dr. C. L. Katz, of that city. The physician will be prosecuted on the charge of a violation of the Harrison narcotic drug act, according to a statement by L. S. Harvey, assistant United States district attorney at Topeka.

"The United States district attorney's office is now in possession of 542 prescriptions for unusually large quantities of morphine, opium and heroin, that were written at Wichita by Dr. Katz, for numerous persons living in that city and for several living in other cities. The 542 prescriptions were written between March 1 and July 13, this year—a period of 135 days.

"Besides the prescriptions in Doctor Katz's handwriting, he wrote lengthy explanations on the prescriptions, citing his reasons for prescribing such large doses. The government officers here have not learned that the physician sent any of the drugs through the mails."

Dr. Katz is a member of the Leavenworth County Society.

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Dr. A. B. Peters Dead.

Dr. Alexander B. Peters, of Mankato, died suddenly Tuesday evening, July 20, while seated at his desk after a busy day, during which he was as well as usual. Dr. Peters was 68 years of age, past grand medical examiner of the A. O. U. W. of Kansas, for long years Rock Island surgeon at Mankato, had served as mayor of the city, was prominent in Republican political circles and was one of the most widely known physicians in northern Kansas.

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A Kansas physician recently reported a case, or rather it was reported in the newspapers, which, if true, is rather interesting. A child was brought to him with a sore throat and a history of having swallowed a blade of grass. The sore throat was given attention, but in a short time the child was again brought to him with a lump on its back. On incising this the blade of grass appeared.

American Proctological Society.

The seventeenth annual meeting of this society was held in San Francisco, June 21 and 22. The presiding officer was Louis J. Krouse, M. D., of Cincinnati, Ohio. Dr. T. Crittenden Hill, of Boston, was elected president for the ensuing year and Dr. Alfred J. Zobel of San Francisco, secretary.

We give below an abstract of some of the papers presented.

"Rectal Prolapse and Its Mechanics."—By Wm. M. Beach, M. D., of Pittsburg, Pa.

Dr. Beach feels assured that many of the victims of dyschezia could give a history of prolapsus in childhood. He states that we are coming to think of prolapsus in terms of hernia, the verity of which must be determined from a consideration of the pelvic fascia and intra-abdominal pressure. Under the head of treatment he states that a number of surgical procedures have been devised and advocated for the restoration of the dislocated rectum; that they have seemed to succeed for a time, only to prove a failure later on.

"Emetin Hydrochloride in the Treatment of Amebic Dysentery."—By Geo. B. Evans, M. D., of Dayton, Ohio.

Dysentery may persist for months or years after the amebic ulcerations have been healed, without amebiasis being present. It may exist in a mild or severe form. A positive diagnosis can only be made by the aid of a microscope. The smears should be taken preferably from the ulcerations on the free border of the rectal valves. The author believes that treatment by irrigation is a thing of the past. It has been supplanted by emetine hydrochloride hypodermically. The conclusions are that what quinine is to malaria, and mercury to syphilis, emetine hydrochloride, hypodermically, is to amebiasis.

"The Present Status of Local Anesthesia in the Surgery of the Lower Bowel."—By Louis J. Hirschman, M. D. of Detroit, Mich.

Dr. Hirschman employs local anesthesia in the surgical treatment of the majority

of his cases of anal and rectal diseases, as well as in a small proportion of cases involving surgery of the colon. The results in both classes of surgical operations have been so satisfactory to both the patient and surgeon that the author advocates with great earnestness the further employment of local anesthesia not only in the field of intestinal surgery but also in every branch of surgical activity where absolute unconsciousness of the patient is not a strict necessity.

"Which is the Best Anesthesia to be Used in Anal and Rectal Surgery?"—

By Wm. H. Kiger, M. D., of Los Angeles, Cal.

Dr. Kiger called the attention to the ease of administration of spinal anesthesia; that it may be given without the assistance of an expert anesthetist; that it saves time by doing away with the delay incident to an operation under a general anesthetic; that by its use the dangers of chloroform and ether are eliminated, as are also their after effects; that when it is employed there is no need to dilate the sphincters as all the operator has to do is to ask the patient to strain and the gut will easily protrude through the relaxed sphincters; and finally that it avoids shock.

"Further Observation on the Treatment of Pruritus Ani by Autogenous Vaccines."

—By Dwight H. Murray, M. D., of Syracuse, N. Y.

In making the fifth report of his original research work on Pruritus Ani and Pruritus Vulvae, Dr. Murray gave the results of the examinations concerning the etiology of twenty-one additional cases, together with their treatment, complications, and present condition. He also reported further on the cases previously examined, treated and reported. He believes that he is still justified in emphasizing the claim the most cases of Pruritus Ani and Vulvae are due to a local infection which may be benefitted by treatment with autogenous vaccines.

Where he was unable to find streptococcus infection at the first bacteriologic

examinations, this year when the patient had a slight relapse streptococcus fecalis was found. This gives additional evidence that infection may be present and yet the bacteriologic report not show it. Even when we have the knowledge that it is a skin infection; that the phagocytic power of the blood is below normal for the infecting bacteria; and that the vaccine injections give the best and most lasting relief; yet we are still unable to give patients a definite statement as to the number of treatments or length of time necessary before improvement will begin. Nor are we able to assure them that no relapse will occur.

The Ultimate Nervous Results of Acute Angulation of the Sigmoid, and the Consequent Fecal Stasis. By Wm. H. Axtell, M. D., of Bellingham, Wash.

Dr. Axtell divides the nervous end results into three general types:

- (a) Severe type; Including acute mania.
- (b) Moderately severe type; including melancholia; chronic sciatica; chronic lumbago; trophic corneal ulcers.
- (c) Mild type; including eczema; the apathetic; the neurasthenic.

Dr. Axtell's conclusions are:

(1) Many cases treated as typhoid fever are simply cases of constitutional and systemic infection from putrefactive toxius of the alimentary canal.

(2) If the true condition were recognized at the outset, and if the colon were thoroughly cleansed of the soil for the growth of typhoid bacteria, there would be fewer cases of typhoid fever.

(3) Physicians do not as a whole examine the rectum and colon with the same degree of precision that they do other parts; they do not have a true appreciation of its importance; nor do they comprehend what persistence is required to empty the colon.

(4) We are all too much inclined to cling to precedent, rather than to act according to the conditions found.

BOOKS.

The Clinics of John B. Murphy, M. D.

Number 3 of Volume IV. Published by W. B. Saunders Co., Philadelphia. In this number, under Clinical Talks on Surgical and General Diagnosis, the following subjects are covered: Diagnosis of Injuries of the Carpus; Fracture of the Left Carpal Scaphoid and Dislocation of the Semilunar; Dislocation of the Left Unciform Bone; Transverse Fracture of the Left Carpal Scaphoid, Semilunar Dislocation, and Fracture of the Ulnar Styloid; Dislocation of Right Semilunar Bone and Fracture of Right Ulnar Styloid Tip—Fracture of Left Ulna in its Upper Third.

The general topics discussed are as follows: Appendicitis; Intestinal Obstruction Due to a Large Gall-Stone; Unsuccessful Gastro-Enterostomy for Ulcer; Friction Burn of Left Ankle—Closure of Defect—; A Series of Drawings; Embryonic Tumor of Testicle; Tuberculosis of the Left Spermatic Cord and Epididymis; Chronic Tendovaginitis of the Extensor Tendon of the Thumb; Painful Exostosis of the Os Calcis; Congenital Perineal Fecal Fistula; Hypernephroma of the Right Kidney; Myeloid Sarcoma of the Left Malar Bone; Malignant Epulis of the Mandible.

Practical Medicine Series.

We have just received volumes III. and IV. of the Practical Medicine Series for 1915. Each of these volumes is one of a series of ten issued at about monthly intervals and covering the entire field of medicine and surgery. Each volume being complete for the entire year prior to its publication on the subject of which it treats. Volume III. is devoted to the Eye, Ear, Nose and Throat, and is edited by Casey A. Wood, M. D., Albert H. Andrews, M. D., and William L. Ballenger, M. D. The price of this volume is \$1.50. Volume IV. is devoted to Gynecology and is edited by Emilius C. Dudley, M. D., and Herbert M. Stowe, M. D. The price of this volume is \$1.35. The price of the whole series is

\$10. Published by The Year Book Publishers, 40 Dearborn St., Chicago.

Prevention and Treatment of Infections.

By Oliver T. Osborne, A. M., M. D., Professor of Therapeutics and formerly Professor of Clinical Medicine in Yale Medical School; Member of the Council on Pharmacy and Chemistry, etc., New Haven, Conn.

Published by The Journal of the American Medical Association.

This is an elaboration of the articles which appeared in the Journal of the A. M. A. under the title "Prevention is Greater Than Cure." In this little book the following subjects are discussed:—Some Common Factors of Immunity, Vaccine Prevention and Vaccine Therapy, The School Question, The Common Infectious Diseases, Diseases of the Respiratory Tract, Hookworm Disease, Whooping Cough, Mumps, Diphtheria, Septic Sore Throat, Measles, German Measles, Chicken Pox, Scarlet Fever, Cerebrospinal Fever, Acute Anterior Poliomyelitis.

The book is quite complete and quite up to date. Though it is not intended to cover a very wide field those subjects have been included which are of most practical value to the practitioner.

The Medical Clinics of Chicago.

Volume I., Number 1., Published bi-monthly by W. B. Saunders Co., Philadelphia, Pa. Price per year \$8.00.

It is the purpose of this new publication to present the clinics of some of the best clinical teachers in Chicago in every department of internal medicine. The contributors to the first number are Dr. Charles L. Mix of Mercy Hospital; Drs. Isaac A. Abt and Maurice L. Goodkind of Michael Reese Hospital; Dr. Robert S. Preble of St. Luke's Hospital; Dr. Charles Spencer Williams, Dr. Frederick Tice, Dr. Walter Hamburger and Dr. Ralph C. Hamill of Cook County Hospital.

Among the subjects presented in this number we note the following: Lung Abscess, Lesion of the Cauda Equina, Ne-

phritis, Hepatic Abscess, Gout, Infantile Tuberculosis, Sarcoma of Kidney, Chronic Lymphatic Leukemia, Renal and Cardiac Insufficiency, Pneumonia, Tabes, Cholelithiasis, Syphilitic Aortitis, Hour-Glass Stomach, Congenital Pulmonary Stenosis, Aneurism of Arch of Aorta, Syphilis of Central Nervous System.

MISCELLANEOUS.

Gastric Cancer.

Gastric cancer in its medical aspects is the subject of the address of Dr. J. C. Bloodgood, president of the American Gastro-Enterological Society at Baltimore, May 10, 1915 (Journal A. M. A. June 19, 1915). His observations were based on 184 cases of carcinoma of the stomach seen in the Surgical Pathological Laboratory of the Johns Hopkins Hospital during a period of almost twenty-five years. He finds from a reading of the literature that those surgical clinics in which the total number of cancers of the stomach was larger than the total number of gastric ulcers had a larger percentage of inoperable cancers and a smaller percentage of cures in which resection was possible than those clinics in which ulcers of the stomach were more numerous than cancer. In the Johns Hopkins Surgical Pathological Laboratory up to date the figures are: stomach ulcer, 132 cases; cancer, 184 cases; operation, 45 cases; exploratory laparotomy, 49 cases; gastro-enterostomy, 41 cases; total inoperable cases, 135; resection, operable cases, 49. Thus the operable cases are only 26 per cent. The table given shows that experience with cancer of the stomach really did not begin until 1905. From 1890 until 1905 there were but 35 cases and from 1905 until 1910 there were 76, more cases being referred to the surgeon than previously. In the next five years, from 1910 to 1915, a larger number are being referred, up to date 73, of which 39 per cent. were operable, showing that cases are being recognized earlier and referred to surgical

treatment at a more favorable period. Up to 1910 there were only two cures, a little less than ten per cent. of the operable cases. Among the 28 cases of resection in the period from 1910 to 1915 there is one patient still living nearly five years after being operated on, and if the others living remain well the percentage of cures may be increased to nearly 20 per cent. The figures confirm the impression gained from the literature that with the greater recognized number of ulcers of the stomach than of cancers there is an increased proportion of cures. A second table is given to show the duration of disease to operability, taking as duration the period of continuous symptoms. The chief symptom has been abdominal discomfort in the stomach region aggravated by eating, nausea, belching, vomiting of blood, and blood in the stools. The percentage of operable cases in which symptoms have been present only three months is 29. With six months it falls to 23, and with twelve months' duration, 21. Bloodgood has found this to be about the proportion in cancer in other situations. If the cancer is preceded by a non-malignant lesion there is no definite time in which it may develop; we may find operable cases after long, lasting symptoms, and it seems impossible, in the early stages, to differentiate cancer from ulcer of the stomach. His figures convince Bloodgood that many cases of cancer of the stomach arise in non-malignant lesions, probably ulcer. A large number of patients go a long time with continuous symptoms before calling for surgical aid, a few seek help within a few months after relatively slight symptoms, but have undergone rigid examination by good internists. This, Bloodgood thinks, is the key to the situation. The public should be educated that epigastric discomforts aggravated by eating solid food is a sufficient warning, not that they mean cancer, but that they should have a competent physician look into the case. Inoperability and risk of mortality increase with delay.

Three cases in which the cure has lasted for a number of years, from four to eight, are reported.

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Auricular Fibrillation.

H. E. B. Pardee, New York (*Journal A. M. A.*, June 19, 1915), maintains that in patients with auricular fibrillation, contrary to the usual opinion, this irregularity does not probably increase the gravity of the prognosis. The beginning of fibrillation is sometimes sudden and severe; the heart becomes rapid from the start, 120 per minute. More frequently the rate is slower than this, somewhere near 80 per minute, and this rhythm may be present for a considerable time without subjective symptoms. On attempting moderate exertion the rate increases and dyspnea, palpitation or precordial discomforts appear, though not lasting long at first. Without treatment the condition becomes worse. The dyspnea is more easily induced, the heart rate is increased in the intervals, the edema appears and the patient is confined to his room. The heart cannot maintain its efficiency with a shortened diastole due to the rapid ventricular rate, it tires more and more easily, and finally is altogether unable to carry on a sufficient circulation. This breaking down takes a variable period of time, depending on the quality of the muscle, the demands made on the heart, or associated pathologic conditions. The range may be from three to many months. Under energetic treatment with digitalis, the cardiac failure is corrected. Twenty minims of tincture, four or five times daily, or its equivalent, will usually relieve the dyspnea and palpitation and reduce the heart rate. Gradually reducing the dosage the toxic effects can be avoided, and the patient recover his strength and is able to go about much as before, though the heart has been damaged and should be kept under medical observation. Pardee reports a number of cases, supporting his contention, and emphasizes his conclusion that the prognosis in such cases should be less gloomy than it has been. It is only recently that we have learned the necessity

of continued medication in the treatment of auricular fibrillation. With proper treatment the prognosis should not be more unfavorable than that of the associated pathologic conditions.

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Sugar as a Hand Cleanser.

Dr. D. H. Stewart says: "The most careful antiseptic toilet may be brought to naught by the preliminary use of soap; therefore clean your hands with granulated sugar, and also dress wounds with it if you have nothing better." His experience since 1895 has shown that "with sugar and water, followed by chloride of lime and water, the physician's hands may be rendered sterile." This has been confirmed by laboratory tests. "Granulated sugar is gritty, takes the place of both soap and brush, does the work better and leaves the skin unscratched, soft and smooth."—*Mass. Med. Jour.*

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Chronic Duodenal Ulcer.

Recognition of the fact that duodenal ulcer is much more frequent than gastric ulcer, the opposite to what was formerly held is remarked by W. J. Mayo, Rochester, Minn. *Journal A. M. A.*, June 19, 1915), in the introduction to his article on chronic duodenal ulcer. He says that there is a type of acute ulcer of the duodenum, probably toxic in origin, which gives rise to sudden severe symptoms often followed by perforation or hemorrhage, and the patients, if untreated, either die or get well within a few weeks. So far as he has been able to observe, experimentally produced ulcers belong to this class and throw little light on the chronic callous ulcers of which he treats. The latter are usually single, seldom begin with an acute attack, and as a rule the earlier symptoms are less severe than the later ones. It is probable that a large percentage of duodena ulcers were never diagnosed at all prior to the knowledge recently obtained, not even at operation, and the extensive peritoneal involvement obscured the location after death. The same causes which produce gastric ulcer cause duodenal ulcer, and Mayo seems

to favor as much as any the infection theory. One possible source of injury which may have some bearing on its production as well as that of peptic ulcer and cancer is hot drinks, which he thinks are a rather important factor. The pyloric veins are most valuable in differentiating gastric from duodenal ulcer. They are quite unlike the other veins and serve readily to locate the pyloric ring. A large majority of duodenal ulcers occur in the first 11-2 inches, more often on the anterior wall. The deeper larger ulcers and those bleeding excessively occur most often on the posterior wall. Ulcers may exist at any point above the opening of the common duct. A high percentage perforate the bowel coats and are classed as chronic perforations, complete perforation being prevented by thickening and adhesions. Localized peritonitis may occur with spontaneous recovery. In typical cases diagnosis should not fail. The hunger pain and food relief, hyperacidity and hypersecretion, and in the later stages obstructive phenomena, leave little doubt. Accompanying diseases of the gallbladder, appendix, etc., which occur in about 16 per cent, may cause difficulty. Mayo does not put much faith in the finding of occult blood in the stools, and actual hemorrhage according to his experience occurs only in about one quarter of the cases. The Roentgen rays are a valuable aid, and the physical examination, including the use of the stomach tube, is important. Dividing the diagnosis into four parts, the history is of first rank, the Roentgen ray second, the physical examinations third, and the purely laboratory findings a poor fourth. The intermittancy of symptoms is curious. The disease usually begins in young males (in females, only 17 per cent), and after a period of some weeks of symptoms the patient feels well for weeks or months and then they again recur. The cycle continues over and over again until obstructive symptoms appear and the symptoms become more or less constant, but the stomach may compensate for this by hypertrophy of its musculature as does the heart in valvular disease. The

prospects of permanent cure by medical means are dubious, though Sippy has shown that by means of alkalies, diet, etc., rather long intermissions can be obtained. A recurrence of symptoms after operation is most often due to a defective surgical technic, the occurrence of stitch ulcers, etc. The enthusiastic operator has greatly harmed gastric and duodenal surgery, and pyloric blockage has become too popular. In the majority of cases gastroenterostomy is the ideal operation, and in selected cases excision of the ulcer with gastroduodenostomy of Finney is the operation of choice. Following surgical intervention the patient should be under good medical advice until permanent cure is assured.

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Trombidiosis.

G. M. Olson, Minneapolis (Journal A. M. A., June 19, 1915), describes this disorder, which he says has long been known though infrequently diagnosed. In Minnesota there are many hundred cases each summer, and diagnosis is important, as it causes much suffering and can be readily relieved by proper treatment. The parasite causing it is the red jigger (*Trombidium irritans*). It is an orange-red insect with six legs and is found mainly in the grass and bushes in damp places. In one or two hours the jigger has sunk its head into the skin and the itching begins. Erythematous and other lesions occur, but urticarial lesions constitute the ordinary forms of the disease. It may be found on the feet, ankles, legs and arms, and especially in women about the breasts and waist line. Some persons are immune and the symptoms vary in others from a mere reddening around the bite to a general febrile condition with marked lesions locally. The disease occurs in July, August and September, and must not be confused with the "straw itch" due to a similar mite, which is white instead of red. The disease caused by the jigger flea (*Sarcopsylla penetrans*) does not occur in Minnesota, while the red jigger, according to the author seems to be universal through

the Northern states. Prophylaxis consists in keeping away from infested places. The treatment which Olson has found most effective is not mentioned in the books, and consists in extraction of the parasite with a needle and treatment with tincture of iodine.

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Experiment in Respiration.

Saxton Pope, San Francisco (Journal A. M. A., July 3, 1915), reports that in the course of some experiments in respiration, bringing out the theories advanced by Yandell Henderson, an undergraduate student of the University of California Medical School, held his breath for ten minutes. This was done lying on a table with a pneumographic bell attached about his thorax and communicating with a kymograph. Slow deep respirations were taken for about two minutes, eliminating much of the carbondioxid from the blood. A breath of oxygen was then taken and the time marker started. The tracing is shown. The slight relaxation of the respiratory muscles was shown at two minutes. No desire to breathe was experienced until six minutes was elapsed, but the conscious effort to hold breath increased until an involuntary twitching of the abdominal muscle was apparent. The pulse was all the time good and strong, and the color was good. At ten minutes and ten seconds, he could hold no longer. No great hyperpnea, no weakness, no heart changes appeared. The student rose from the table and went about his class work. Mr. Horner, the student, is a swimmer and has taken part in underwater contests. So far as Pope knows, this is the longest holding of breath on record.

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Roentgen-Ray Protection.

M. Milton Portis (Journal A. M. A., July 3, 1915), says that while there are dangers in the Roentgen ray, due care is not taken by the roentgenologist to avoid them. The problem is a two-fold one, protection against, first, the primary ray, even though it is filtered, and second, the secondary ray, which is present in appreci-

able amount in all parts of the room. Blood changes can be produced in animals by the ray, and it is rational to assume that individuals long exposed may also suffer similarly. Leukemia is a disease noticed in Roentgen workers, and while the published accounts of animal experiments do not all agree, all report changes in the number of leukocytes. Since the fluoroscope has become so largely used the dangers to the operator are increased. In experiments undertaken by Professor Milliken of the University of Chicago, in Portis' Roentgen-Ray room, estimating both the primary and secondary rays by means of the gold-leaf electroscope, the amount of the secondary ray thus found in various parts of the room was surprising. Portis illustrates an apparatus which was found to exclude both rays and make the handling of the Roentgen ray comparatively safe. Susceptibility varies in different individuals, but he urges all workers to use proper precautions.

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Flatfoot.

Referred pain in flatfoot and in weak feet is being constantly overlooked, according to M. Strunsky, New York (Journal A. M. A., July 3, 1915), especially when the referred pain is in a remote part of the body, or when the arches are normal to all appearance. The cure of the pain by proper support given to the arches shows that it must be due to arch strain. He reports two cases illustrating this fact. That pain on the inside of the knee is often due to this cause is a well-known fact, though there are numerous fanciful symptoms thus attributed which he does not here consider, such as paresthesia of the outer side of the thigh, nausea, vertigo, etc. If there is inflammation in the feet it is easy to understand that pain may be caused in any part of the nerve, the terminations of which are subjected to the pressure, but when there is not the slightest tenderness or irritation in the feet, especially in the referred pain in a remote part of the body, as for instance in the arms and between the shoulder blades as in one of the cases

here reported, the explanation is not so easy. Strunsky thinks the referred pain in such cases is due rather to disturbance in muscle balance. "The arch is practically the pivot on which the anterior flexor muscles and the posterior extensor muscles of the body are riveted. Any disturbance of the arch causes more pain to fall on one group of muscles, and a compensatory lessened strain on other groups of muscles. Referred pain in flatfoot, especially in the remote part of the body, is due therefore to traumatism of the muscles caused by the disturbance in muscles balance." While the importance of flatfoot and weak feet is much over-estimated it is rather strange that the pain they cause is so often attributed to all kinds of conditions. A fact mentioned by Strunsky which may help to a right diagnosis when the arch appears normal, or even higher than normal, and there is no pain or tenderness in that locality, if the patients have occupations which compel them to keep on their feet for long periods, referred pains from this cause may be considered and the therapeutic test of relieving the strain, or simply padding the feet with felt may verify the diagnosis.

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Colloidal Solutions in Shock.

To meet the conditions of loss of blood in medical and surgical practice and the consequent low blood pressure, J. J. Hogan, San Francisco (Journal A. M. A., Feb. 27, 1915), recommends the use of colloidal gelatin solutions injected intravenously to obviate the loss, which can be only imperfectly done by use of salt solutions. This latter does not remain in the blood vessels, and the blood pressure, brought up by the injections may disappear after a limited time, on account of the lack of the colloids naturally present. He describes and illustrates by graphic curves the effects of injections of salt solution alone or combined with a colloid, showing how the latter tends to hold the fluid in the blood. The best transfusion fluid, of course, is whole blood, but its usefulness is limited by the obvious difficulties and danger of the method. Hence

he has advised a gelatin solution to be added to the salt solution, properly sterilized of course, and reports cases in which it has been employed by him or under his observation.

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Read the Want ads on "ad" Page XIV.

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Fluoroscopic Bronchoscopy.

Three cases of bronchoscopy, aided by the fluoroscope, two personal, and one seen with another physician, are reported by E. F. Ingals, Chicago (Journal A. M. A., Aug. 7, 1915). The use of the method is indicated in operations in cases in which a foreign body that casts a shadow cannot be extracted by ordinary means, especially those in which it is obscured by mucus, pus or blood or granulation tissue, when it is hidden in an abscess cavity, when a stricture prevents inspection and in difficult cases when the foreign body is lodged in the bronchus so that it cannot be exposed by ordinary methods. In the cases reported, the substances removed were a nail in an abscess cavity, part of a rivet, and a brass-headed upholstery tack. In one case, that of the abscess, the nail seems to have been in the lung for two years, and the patient had been diagnosed as tuberculous.

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Typhoid Immunization.

William Lyster, Washington, D. C., (Journal A. M. A., Aug. 7, 1915), gives the history of typhoid immunization in the United States Army since 1908, when it was first recommended by a board of medical officers and applied to the Hospital Corps, Army Nurse Corps and those members of the army volunteering to receive it. The manufacture of vaccines in large quantities was begun, and at the end of 1911 the majority of those connected with the army had undergone vaccination. The routine immunization of all recruits was begun in June, 1911, and in September of that year it was made compulsory. In 1910 there were 198 cases and in 1912 this

was reduced to twenty-seven. In 1913 there were four cases, and in 1914 seven cases were reported. In only two out of the eleven had the complete course of immunization been administered. The benefits of vaccination can hardly be better shown. The standard of sanitation has not been changed in general. The only change of recent years has been a system of conservancy that largely prevents flies entering the latrines and becoming conveyers of disease, but this could have affected only a small part of the army. In other respects the soldiers are almost as completely exposed to infection as are civilians.

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Intestinal Obstruction.

The characteristics of the poison that acts in intestinal obstruction have been studied by G. H. Whipple, San Francisco (Journal A. M. A., Aug. 7, 1915). It can be obtained from a fluid above an intestinal obstruction, from a closed washed loop of small intestine, or from the mucosa of a closed loop or one draining externally through an enterostomy wound. The intoxication varies only in intensity. One can inject this poison into a dog and produce more or less profound intoxication, according to the amount injected. Dogs can be immunized by sublethal doses, but the immunity cannot be carried very high. They can then survive intestinal obstruction or closed loop longer than the control dogs. A capacity of the organ cells of the body is gained to destroy the toxic substance. Filtered immune organ extracts, presumably containing active enzymes, can destroy the poison in vitro, but the blood of immune animals contains no such enzymes, and is inactive toward the poison. When a loop of small intestine is thoroughly washed out and closed and the continuity of the intestine established around it, the following intoxication must be due to either bacterial activity or perverted activity of the mucosa, or to both together. There is no evidence of the former, but the intestinal

mucosa is essential since its destruction with sodium fluorid stops the formation of the poison. The absorption of the poison is not from the lumen of the intestine, but from the mucous membrane which forms it and passes it into the blood, while the mucosa itself may seem almost normal. The chemical nature of the poison is not fairly determined, as it has never been isolated in purity, but almost all the conflicting statements about it are easily explained when it is realized that it is a primary proteose. It is thrown out of a solution rich in albumins by boiling (adsorption), but after autolysis or digestion it may be boiled without harm. Its proteose nature explains why the poison is held back in fine earthen filters, but not by paper filtration. It is not destroyed by digestion with pancreatin for a period of one week, and only with autolysis with intestinal mucosa after months. Its action after intravenous injection in dogs resembles anaphylactic shock. It is precipitated by alcohol, and the precipitate contains all the poison. Water will remove the poison from the alcoholic precipitate. It can be still further purified by precipitation at room temperature with equal parts of a saturated solution of ammonium sulphate, and the precipitate can be collected and freed from albumin in an almost water-clear solution. One hundred mg. of this pure poison given intravenously will kill a 15-pound dog. This isolation of the poison as a pure proteose eliminates all other substances except sodium chlorid and a trace of ammonium sulphate, and since it resists digestion it may be classed as a hetero-proteose. The symptoms produced by it are identical with those of poisoning by loop fluid, and the anatomic picture is the same. We can therefore assume that the intoxication from the closed intestinal loop is due in great measure to the absorption of a primary proteose from the intestinal mucosa. Whipple has not been able to detect the substance in the urine, perhaps because the small amount is fatal, and the flow of urine is

inhibited after a large dose. The proteose too, may be changed in some manner before it is eliminated. Diuresis will help in the elimination, and this explains the good effects of salt infusions in intestinal obstruction. Another point of importance is brought up as regards diagnosis. The injection of this toxic proteose causes a great rise in the incoagulable nitrogen of the blood. This seems to depend on the intensity and rapidity of the intoxication, and is of considerable prognostic and diagnostic value. This rise may be four, or even ten times the normal.

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Transvaluations.

In his chairman's address before the Section on Laryngology, Otology and Rhinology, of the American Medical Association, at San Francisco, June, 1915 (Journal A. M. A., Aug. 7, 1915), Norval H. Pierce of Chicago cautions against too much enthusiasm and zeal for innovations, more especially in the specialties to which his section is devoted. Medical progress, he says, as regards medical discoveries, has its ebbs and flows, and for every new resource found there is a period of exaggerated hope often followed by another of neglect before a sane and sober estimation of its value is reached. He gives a number of instances in the history of medicine and notices some tendencies to arouse temporary enthusiasm for the older and more time-honored methods, etc. He holds, however, that the specialty of the ear, nose and throat has now been placed on a broad surgical basis, and in conclusion he cautions against too much faith in the use of serum and vaccine in treatment of nose, throat and ear affections. His personal experience with this has been most disappointing.

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Feeding on Bile.

J. C. A. Gerster, New York (Journal A. M. A., June 5, 1915), reports the case of a man who, after an operation for gallstones, suffered from a biliary fistula through which all the bile escaped, leav-

ing him in a pitiable condition. Tentative closure of the fistula caused cramps and failed to divert the flow of bile into the duodenum; evidently there was obstruction of the common duct. The patient's general condition forbade operation and, following the method described by Schmilinsky in a similar case, all the bile was collected through a catheter snugly fitting the fistula and passed into the stomach by the stomach tube twice a day (8 ounces each time), causing remarkable improvement. Fifteen days later a stone impacted in the papilla of Vater was taken out under local anesthesia. After the second day convalescence was uneventful and the man was discharged cured three weeks later.

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Aluminum Vessels.

Prof. John Glaster, of the Glasgow University, by a series of experiments has determined that the only food substances that attack aluminum ware are oranges, lemons, Brussels sprouts and tomatoes. Even with these the quantity of aluminum dissolved is so small that it seems to be perfectly harmless to the human organism. Owing to the fact that aluminum is free from danger of poisoning, is easy to clean, heats quickly, is not blackened by sulfur as silver is, and is not affected by air at any temperature, aluminum seems to be an ideal metal for the manufacture of cooking vessels.—Practical Medicin.

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Ivy Poisoning.

A physician, writing to the Medical World, recommends the application of gasoline in treating ivy poisoning. Of course, the use of so inflammable a chemical as gasoline is attended with grave dangers and the person for whom it is prescribed should be properly cautioned.—Druggist Circular.

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Cinnamon Oil for Warts.

Oil of cinnamon, applied to the head of a wart as an escharotic, causes little heat, no burning, no scab, and no scar, according to Rosenberg, who states in Ellington's

Therapeutist that he has obtained the best results from its use in this connection.

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Read the Want ads on "ad" Page XIV.

THERAPEUTIC NOTES

Sensitized Bacterial Vaccines.

Almost every practicing physician has had more or less personal experience with the use of bacterial vaccine in the treatment of infection. The practical value of this form of therapy—especially in acute conditions—is universally recognized. Although it cannot be said that vaccines are absolutely indispensable in the therapeutics of any form of infection, the results obtained at times as a direct result of the use of vaccines are so self-evident and so striking that their efficacy is not to be doubted. Not only in the cure, but in the prevention of disease as well, bacterial vaccines have assumed an importance that can hardly be exaggerated. The great European war now raging has served to emphasize more than any other event the real value of vaccines in the prophylaxis of those infectious diseases usually associated with camp life and the general unhygienic conditions of battle-scarred districts. The soldiers are immunized not only against these forms of infection, but by means of staphylococcus and streptococcus vaccine the attempt is also made to increase their immunity to infection that is apt to develop in a wound. In the practice of pediatrics attention has recently been called to the value of pertussis vaccine as a prophylactic of some value for whooping cough. It is quite probable that vaccine therapy will be developed to a greater extent than it is now. With the introduction of newer and better methods of preparing the material it is quite likely that vaccine therapy may again take its place as a most popular therapeutic aid, and that it may yield therapeutic results much more striking than those obtained at present.

Ordinary vaccine as generally used consists of dead organisms, the bacteria be-

ing killed by heat. Such a vaccine, when introduced into the body, produces a condition of immunity by stimulating the formation of protective substances known as antibodies, whose function it is to destroy the specific bacteria causing the infection. When ordinary vaccine is used, this protective reaction is not immediate; it takes several days before a sufficient number of antibodies are produced. If, however, the so-called sensitized vaccine is used the protective reaction occurs immediately.

Attention was first called to the use of sensitized vaccine by Besredka, in 1912. His method was to prepare the bacteria to be used as a vaccine by mixing them with the specific immune serum containing antibodies for the particular variety of bacteria to be used. The organisms attract the antibodies in the serum, and when injected into the body they are at once acted on by the complement. Bacteria—or any antigen—when properly joined to its specific antibody and to complement, lose their toxic properties entirely, or their virulence is so modified or attenuated that they may be administered without fear of dangerous sequelae.

A vaccine prepared in such a way, containing living sensitized bacteria, should certainly be superior for all purposes to one prepared in the ordinary way, containing dead bacteria. The superiority of sensitized vaccine appeals to anyone at all familiar with biologic products. The arguments in its favor advanced by those who have had experience with it may be summarized as follows.

The bactericidal power of the blood is increased at once. There is a rapid appearance of antibodies in the circulation, and these antibodies are present in much larger quantities than after the use of ordinary vaccine. Since the bacteria are greatly saturated with antibodies, they do not use up those which may have been formed in the body in response to the infecting germ, so that there does not result that reaction spoken of as "negative phase," during which the protective

mechanism of the body is lowered for the time being. With sensitized vaccine there is produced little, if any, local or general reaction.—*Journal of the Indiana State Medical Association.*

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Read the Want ads on "ad" Page XIV.

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A Rational Treatment for Hay Fever.

Vasomotor rhinitis or hay fever is very generally recognized as a neurosis in which the morbid cycle is the irritation of a hyper-sensitive area in the nasal chamber by a foreign particle, the dilatation of the local capillaries, and turgescence of the turbinal tissues, accompanied by a catarrhal inflammation of the nasal mucous membrane. When the affection has declared itself and the patient is suffering more or less acutely from its ravages, manifestly there is need of prompt and effective treatment.

The suprarenal substance in the form of its isolated active principle, Adrenalin, is undoubtedly one of the very best of remedial agents at this critical juncture. While not a specific in the strict meaning of the word, it controls the symptoms effectually and secures for the patient a marked degree of comfort. Adrenalin Chloride Solution and Adrenalin Inhalant are the preparations most commonly used. The first mentioned should be diluted with four to five times its volume of physiologic salt solution, the latter with three to four times its volume of olive oil. The medicament is applied in spray form to the nares and pharynx. Any good atomizer adapted to the use of oily or aqueous substances is suitable employed.

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A Healthful, Convenient, Leavening Agent.

The doctor frequently has occasion to prescribe a diet for his patient and under such circumstances, is interested in the healthfulness and action of every ingredient of the food. Probably no ingredient is more influential in the production of appetizing and nutritious foods than is baking powder and at the same time there

is no ingredient over which there has waged such fierce trade controversies as to healthfulness and efficiency.

In view of these facts, the medical profession will welcome a concise treatment, setting forth in simple language, the facts in relation to the manufacture, chemistry and relative healthfulness of the different kinds of baking powder.

Thomas G. Atkinson, M. D., L. R. C. P. (London) in his new book of 58 pages entitled "Baking Powder—A Healthful, Convenient, Leavening Agent" gives us this concise, rational treatment in such simple terms that even the housewife who had not studied chemistry, would grasp the entire significance of every step in the presentation of the subject. This book should do much to do away with the misconceptions fostered by the false advertisements of trade interests and will ensure a wiser course in the selection of the type of baking powder to be used in the home or sanitarium, through its presentation of the work a baking powder is expected to do and what combination can be employed to effect this work most perfectly.

The comparison as to healthfulness is based directly on the chemical reactions that take place in the baking, by comparing the amounts of residue from different powders of *the same strength* in the light of their medicinal doses.

Every physician will be amply repaid for a study of this book. Price 50 cents.

Published by The Commonwealth Press, Chicago, Ill.

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New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

Cephaeline.—An alkaloid obtained from ipecac. It is relatively more emetic and less nauseant than ipecac and causes more renal irritation and less cardiac depression. It may be used as an emetic and ex-

pectorant. It is insoluble in water, but forms water soluble salts.

Syrup Cephaeline, Lilly.—A non-proprietary preparation containing cephaeline hydrochloride, equivalent to 2-5 grain cephaeline per fluid ounce. Eli Lilly and Co., Indianapolis, Ind. (Jour. A.M.A., June 19, 1915, p. 2067.)

Ouabain Ampules, (H. W. and Co.)—Each ampule contains 0.5 mg. crystallized ouabain. Hynson, Westcott and Co., Baltimore, Md. (Jour. A.M.A., June 19, 1915, p. 2067.)

Caustic Applicators, Special (Silver Nitrat, 50 per cent.) .—Wooden sticks 12 in. long, tipped with a mixture of silver nitrate 50 per cent, and potassium nitrate 50 per cent. Antiseptic Supply Co., New York. Jour. A.M.A., July 3, 1915, p. 29.)

Enzymol.—An extract of the fresh animal stomach containing the gastric enzyme in active standardized form and having an acidity due to combined hydrochloric acid. Enzymol is stated to be useful as an application to old sores, ulcers and slow healing wounds. It is said to correct offensive odors, to exert a solvent action on pus, sloughing and necrotic tissue and to impart a healing stimulus. For the solution of necrotic bone and in some abscesses hydrochloric acid is added to the diluted extract. (Jour. A.M.A., July 24, 1915, p. 333.)

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Properly proportioned (baking) powders, of the "phosphate-alum" type, are not only the best in keeping quality, but, when they contain sufficient phosphate, such as the Calumet Baking Powder, have also the best balanced speed of action, and insure the housewife against the dangers either of fallen biscuits on the one hand or of biscuits, which have crusted over too quickly to obtain the desired lightness, on the other hand.—Domestic Science Text Book.

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Read the Want ads on "ad" Page XIV.

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The Diagnosis of Gastric Ulcer by the Roentgen-Ray.

R. D. CARMAN, M. D., Mayo Clinic, Rochester, Minn.

Read before Kansas Medical Society, Kansas City, Kan., May, 1915.

While it cannot be contended that the Roentgen-ray is absolutely perfect in the diagnosis of gastric ulcer, its percentage of accuracy is greater than is generally supposed and considerably exceeds that of ordinary clinical methods. Besides, it is much more satisfactory and convincing to see the shadow of the ulcer itself rather than to depend upon the conclusions drawn from an always doubtful anamnesis.

I should say roughly that five-sixths of the ulcers of the stomach show distinct roentgenologic indications of gastric pathology and that in a majority of these the roentgen signs are pathognomonic of ulcer.

Since the days when Hemmeter tried to demonstrate the presence of gastric ulcer by the adherence of a fleck of bismuth to the ulcer-crater, the roentgenology of this condition has been advanced to a more substantial footing. Among those to whom we are deeply indebted for this progress should be mentioned Rieder, Holzkecht and his devoted pupils Haudek, Faulhaber, and Reiche; for these men established the facts which are now in constant application.

Though the principles remain the same, each radiographer has his own favorite technic for the roentgen examination of the stomach. A modification of Haudek's double-meal method is employed in our

clinic, and the roentgenology of gastric ulcer will be discussed briefly from that standpoint. Six hours prior to the examination the patient is given four ounces of well-cooked breakfast cereal containing two ounces of barium sulphate. This is an arbitrary but practical test of gastric motility. At the screen inspection is determined first of all whether a residue remains from this meal. Then the patient is given barium water, a very fluid mixture which will enter small crevices and can usually be driven through the pylorus, thus visualizing the ring and the duodenum. This is followed by a thicker emulsion of barium in potato-starch-pap sufficient in quantity, as a rule, to fill the stomach. The examination is both fluoroscopic and skiagraphic, neither being used to the exclusion of the other. The peculiar advantages of each have been abundantly set forth in the literature and require no additional emphasis here. The patient is screened and plated in both the standing and recumbent positions, for reasons that will appear hereafter.

By the combined method one is able to obtain within a minimum of time information not only with regard to the gastric outline and position, but also the stomach's motility, mobility, peristalsis and behavior to palpation.

The principal factors affecting the roentgenologic demonstrability of gastric ulcers are their size, depth and situation. The ulcers which can be demonstrated by the roentgen-ray may be divided into the following classes:

1. Minute, shallow erosions and slit-like ulcers.

2. Penetrating or callous ulcers with relatively deep craters and containing more or less scar tissue.

3. Perforating ulcers, with or without accessory cavity-production.

4. Saddle ulcers of the lesser curvature.

5. Multiple ulcers.

6. Carcinomatous ulcers.

Of these six varieties the first,—the small, shallow, mucous erosion,—is most difficult to detect. It may be either a superficial denudation or a minute slit in the mucosa incapable of holding enough barium to affect the gastric outline at that point. Unless accompanied by reflex manifestations, its presence will scarcely be suspected, much less positively determined.

Penetrating ulcers which have excavated the gastric wall rather deeply or have callous, thickened margins, produce a definite crater which can be visualized with more or less facility according to its size and location. By the perforation of an ulcer and a continuation of the destructive process into adjacent tissue, commonly the liver or pancreas, an accessory cavity may be formed. By reason of their size and extra-gastric situation they rarely escape discovery by the roentgen-ray. Perforation can occur without the production of an accessory pocket, for the breach may be sealed by omentum or otherwise. In this event it cannot be distinguished from a penetrating ulcer.

Saddle ulcers of the lesser curvature are far less frequent than the ordinary penetrating or callous ulcers. They are characterized by an extensive but rather shallow erosion. However, in one case that I have seen there was considerable irregularity of the gastric contour at the site of the ulcer. This could not be differentiated from the filling defect of a carcinoma and the case was diagnosed simply as a lesion of the stomach. In another case there was a broad but superficial bulging corresponding to the ulcer-crater.

The bulging was so slight and gradual that it was not noted at the screen examination and was found only by a careful inspection of serial plates made in the prone position.

Multiple ulcers are sometimes recognizable by the production of two or more demonstrable ulcer-craters, provided they are sufficiently deep. It is obvious, however, that all multiple ulcers are not of the penetrating type and hence do not always produce multiple craters which can be visualized.

Ulcers which are carcinomatous, either primarily or secondarily, often show roentgenologic signs which are not different from those of simple ulcer. In many such cases only the microscope can establish the fact of malignancy. However, an extremely large ulcer-crater is very likely to be carcinomatous.

It can be readily understood that the situation of an ulcer may materially affect the chance of its discovery by the roentgen-ray. Ulcers on the lesser curvature and posterior wall, where they are common, and those on the greater curvature, where they are rare, can be found with greater ease. Ulcers on the anterior wall are very uncommon. Ulcers involving the pyloric segment of the stomach and those high up in the cardia are more difficult to find, for the reason that the contours of these regions often cannot be seen to advantage either on the screen or plate.

The roentgen signs of gastric ulcer vary all the way from definite and positive indications of the lesion to phenomena which merely arouse suspicion of the condition and, except in a frankly typical case, a correct interpretation will depend largely upon the personal equation of the observer. In the doubtful cases a careful correlation with the clinical findings may give valuable aid.

Classifying the roentgenologic signs in the order of their indicative value, I should divide them into:

1. Direct.
2. Indirect.

3. Auxiliary.

I. THE DIRECT SIGNS OF ULCERS.

The only direct roentgenologic signs of gastric ulcers upon which a positive diagnosis can be made are: (a) The niche, that is to say, the visualized crater of a penetrating ulcer; and, (b) the accessory pocket of perforating ulcer. The niche shows as a bud-like projection from the barium-filled stomach, varying in size and shape. It lies wholly within the gastric wall and can be moved with the stomach by palpation. Being continuous with the gastric cavity, it fills and empties simultaneously with the latter, and contains no occluded gas.

Sometimes the niche is so minute that painstaking scrutiny is necessary to find it. When situated on the lesser curvature of the pars media, as it is rather commonly, or on the greater curvature, where it is found exceptionally, it can be seen in the antero-posterior view. In many instances it is on the posterior wall of the vertical portion of the stomach, and occasionally on the anterior wall. Here an oblique view is necessary to discover it, and this view should never be omitted in gastric examinations. Ulcers in the pyloric portion of the stomach are most often situated upon the posterior wall where a niche can hardly be seen, but in one or two instances I have seen a niche on the lesser curvature of this region. Generally speaking, pyloric and pre-pyloric ulcers rarely give characteristic radiologic signs, though there may be some irregularity of contour or a six-hour retention.

If high up in the cardia, a niche may escape observation by incomplete filling of the stomach. For this reason the barium contents should always be forced upward by palpation during the upright screen examination, and the patient should also be screened and plated in the recumbent position.

A niche is not often imitated by other conditions. Occasionally two peristaltic waves close together on the lesser curvature may have a slight bulge between them somewhat like a niche but as this

projection travels onward, while the niche remains stationary, distinction is not difficult. Now and then a small mass of barium in the intestine near the stomach may resemble a niche, but palpation will usually show that it is separate from the stomach.

The accessory pocket resulting from perforation of an ulcer and excavation of adjacent tissues can hardly be overlooked when filled with barium. High-seated ulcers of the lesser curvature tend to perforate into the liver. Those of lower situation and on the posterior wall may perforate against the pancreas. Cases of perforation into the spleen have been seen occasionally. The pocket may range in diameter from one to three or four centimeters and may be spherical or irregular in outline. It lies outside the visualized gastric lumen and its canal of communication with the latter cannot always be made out. Usually, the contents of the cavity are arranged in successive horizontal layers of barium, fluid and gas, the same as in the stomach. Barium may remain in the pocket after the stomach is empty. Organic hour-glass is a common accompaniment of perforating ulcer.

II. THE INDIRECT SIGNS OF ULCER.

Intermediate in importance between the signs of ulcer which are pathognomonic and those which are only suggestive, I should rank two signs, namely, (a) the incisura, and (b) hour-glass stomach.

The incisura is a localized indrawing of the gastric wall opposite to and in the plane of an ulcer or its scar, due probably to a spasm of the circular muscle-fibers. While, theoretically, an incisura might occur in any part of the stomach and be seen on either curvature, I have seen this phenomenon only on the greater curvature, most often in the upper two-thirds of the stomach but occasionally in the pyloric portion. Incisuræ differ greatly in depth; they may almost segment the stomach or only slightly indent its wall. Usually smooth like the outline of a finger, they may sometimes be a trifle ragged. They are not hard to recognize,

as a rule, although their borders may sometimes overlap in the filled stomach and from certain points of view; hence the stomach should be watched during the filling process and at different angles, using gentle palpatory pressure over suspicious areas. An incisura in the fluid zone above the opaque meal may not be observed unless the barium is pressed upward. Such an incisura will show only on plates made with the patient recumbent. Multiple ulcers may give rise to multiple incisurae. If near each other the incisurae may merge into an irregular, broad indentation, the nature of which may not be apparent unless two or more niches are also seen. Since the scar of an ulcer as well as an active lesion may give rise to an incisura, this sign is hardly a sufficient warrant for operative interference unless supported by clinical evidence of an active process.

Pathologic incisurae must be distinguished from the normal indentations at the incisura angularis and the incisura cardiaca. The incisura angularis is the deep depression in the angle of the lesser curvature. The incisura cardiaca is a shallow depression on the greater curvature at the juncture of the pars cardiaca and the pars media. Strong retraction of the abdominal wall some times causes a wide, shallow incurvation of the greater curvature just below the left costal arch. By forcing the lower pole of the stomach directly upward this depression can be deepened and narrowed into the semblance of an incisura. The most deceptive imitations of true incisurae are those produced by adhesion bands and by spasm. In one case, and fortunately only one, I have seen an adhesion band produce a deep and constant incisura-like indentation. Spasmodic incisurae are relatively common. Sometimes they are of the traveling type, progressing toward the pylorus like a peristaltic wave and recognizable by this fact. Again they may be intermittent, appearing and disappearing, but always at the same place. It has been suggested but not proved that these latter may be caused

by small, shallow ulcers. Finally, a purely spasmodic incisura occurring as a reflex from extrinsic conditions may be permanent and stationary during the period of examination. In order to make the distinction between this and a genuine incisura I am accustomed to prescribe the tincture of belladonna in fifteen-drop doses, t.i.d., for two or three days and then re-examine. A true incisura will nearly always withstand this drug, while the spasmodic incisura will practically always disappear. The test is not absolute but is very efficient.

In this connection it may be well to remember that ulcer itself may give rise to spastic manifestations other than the incisura. In many cases of ulcer in the pyloric segment this portion of the stomach will be seen both on the screen and plate to be vaguely outlined and apparently not completely filled. It may even resemble the filling defect of a carcinoma. That this appearance is due to reflex spasm from the ulcer there can be little doubt.

The hour-glass stomach of ulcer may result either from incomplete segmentation by an incisura or from constriction by the adhesion bands of a perforating ulcer. The former, being of a spasmodic nature, may not be found at operation because of relaxation by the anesthetic, while an organic hour-glass due to perforation with adhesions is, of course, persistent. In both forms the canal joining the two chambers is commonly short and near the lesser curvature, giving the stomach a B-shape. The hour-glass sometimes seen in carcinoma usually has a longer and more centrally placed, irregular canal uniting the two segments, resulting in an X-shape. The hour-glass of ulcer may be imitated by that of spasm from an extrinsic reflex and therefore, unless accompanied by pathognomonic signs of ulcer or cancer, should be tested by the administration of belladonna and a second examination.

III. THE AUXILIARY SIGNS OF ULCER.

There are several contributory indications of gastric ulcer which have varying

degrees of weight according to their association with each other, or with the more definite signs above-mentioned. These auxiliary signs are simply more or less indicative of gastric pathology; they are the small changes which sometimes help to make up the sum total. Included among them are:

- a. Residue in the stomach from the six-hour meal.
- b. Lessened mobility.
- c. Localized pressure-tender point.
- d. Delayed opening of the pylorus.
- e. Acute fish-hook or snail-form of the stomach.
- f. Gastric hypotonus.
- g. Evidence of hypersecretion.
- h. Antiperistalsis.

Between 40 and 50 per cent of the cases with gastric ulcer will show a retention from the six-hour meal. Obviously, retention may be due to many other causes both organic and functional but, if obstructive carcinoma can be excluded, the presence of a residue should stimulate a careful search for the direct signs of ulcer. This retention may occur not only with ulcers at the pylorus, producing organic stenosis, but also with ulcers far away from the pylorus, in which event the residue may be attributed to pylorospasm or to interference with gastric motility through the vagi.

Perforating ulcer may give rise to adhesions with evident local fixation or lessened mobility; but lessened mobility may also result from rigidity of the abdominal wall or high situation of the stomach.

The elicitation of a circumscribed tender point in the gastric area may aid somewhat if other signs are also present; for example, if the tender point is opposite an incisura. It must be remembered that most persons are more or less sensitive to epigastric pressure.

The initial clearance through the pylorus is sometimes scant or absent in gastric ulcer because of pyloric hypertonus or spasticity; but, almost as often, the early flow through the pylorus is free, even copious. Either phenomenon may be

seen in various other conditions.

Scar-contraction of an ulcer on the lesser curvature sometimes produces an acutely flexed or snail-form of stomach. However, any stomach of eccentric shape is open to suspicion.

Gastric hypotonus, as shown by an evident relaxation of the stomach and settling down of the opaque meal to the lower pole, often accompanies gastric ulcer but it is frequently seen without any lesion in women and asthenic males. Hypersecretion, as manifested by an abnormally broad fluid layer above the opaque meal, may sometimes be noted. It is not an invariable associate of gastric ulcer and it may occur in other conditions.

The antiperistalsis sometimes observed in cases of ulcer is not different from that noted with numerous other lesions although it is excellent evidence of grave pathology. Gastric ulcer so often manifests only the indirect or auxiliary signs that an appreciation of their exact worth would be highly desirable. Unfortunately, these signs vary so much in their frankness, and are found in so many different combinations that it is well nigh impossible to give any accurate estimation of their value; but the practical question with which we are concerned is this: Do the roentgenologic signs indicate the presence of a lesion? The ultimate refined diagnosis is a secondary matter.

As seen by the roentgen-ray there are three varieties of stomach, the normal, the reflex and the pathologic. A stomach which clears itself of the barium meal within six hours, is of average size, mobility, flexibility and tone, shows ordinary peristaltic activity and has no deformity of contour must be considered normal from the roentgenologic standpoint. Admittedly, these conditions do not rigidly exclude the possible presence of a small, shallow erosion, but the chance of this sort of error is rather small. The greatest difficulty is in distinguishing between the stomach which is reflexly affected by extrinsic conditions and the stomach which is pathologically altered. The in-

cisura, the hour-glass stomach and other local spasms which arise from ulcer are often exactly simulated by gastro spasm arising from conditions outside the stomach. The gastrospasm sometimes seen on the operating table is practically always circumscribed and transitory. The gastrospasm seen on the screen is generally more extensive and more continuous. If an antispasmodic, belladonna, for example, is given and the spasm persists upon re-examination, the presumption is strong that it originates from a lesion of the stomach itself. Atropine given hypodermically has not been as effective in our hands as the tincture of belladonna by mouth. Fright seems frequently to be an element in gastrospasm and the use of the hypodermic syringe rather increases the patient's apprehension.

The occurrence of a six-hour residue is occasionally also due to reflex pylorospasm from causes outside the stomach, such as disease of the gall-bladder, but nine times out of ten it means serious pathology in the stomach or just beyond, especially if associated with antiperistalsis.

Our first task, therefore, is to exclude the normal-appearing stomachs, then the reflex stomachs, leaving only those in which we can feel quite sure that a lesion of some sort exists. How much farther we can carry the diagnosis as to gastric ulcer when neither niche nor pocket can be seen depends largely upon the particular experience of the observer. For example, I might hazard a diagnosis of ulcer upon a permanent incisura alone; but if it corresponded to a local tender point, or if the stomach also showed retention after six hours, I should feel greater certainty.

The coexistence of gastric and duodenal ulcers is a possibility always to be kept in mind. I have seen perhaps a score of cases in which this occurred. If, then, the presence of a gastric ulcer can be established by the roentgen-ray, the examiner should not be content with this finding alone but should always investigate the duodenum.

Last, but not least, the roentgenologist

cannot afford wholly to ignore the clinical aspects of a case and by considering the clinical data in connection with his own, or by personal conference with the clinician, errors will often be avoided and solutions often found in very puzzling conditions.

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The Surgical Treatment of Chronic Ulcers of the Stomach.

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In any consideration of the surgical treatment of ulcers of the stomach a sharp differentiation must be made between the small acute mucous ulcers and the large chronic infiltrating ulcers. The former are always small, often multiple, have a punched-out appearance with little or no destruction of any of the tissues except the mucosa. They are always acute and have a great tendency to heal spontaneously. These are the ulcers that form so quickly after the absorption of various toxins by the body. A chronic ulcer is almost invariably single (96 per cent), of considerable size and accompanied by destruction of all the tissues down to the muscle of the stomach. The base is smooth, composed of connective tissue and muscle, and lacks the mucous membrane and submucous tissues. The edges of the ulcer are thickened, infiltrated and often overhanging. There is always a considerable area of inflammatory reaction about the edges of such an ulcer as if nature was putting forth a marked effort in an attempt at healing. It may be possible that some of these chronic ulcers heal spontaneously but this must be exceedingly rare and almost never occurs unless perforation takes place. More than 90 per cent of these chronic ulcers occur along the lesser curvature of the stomach, less than 6 per cent are multiple, and more than half are situated near the pyloric end of the stomach (Rodman).¹ This percentage is probably too high.

In considering the surgical treatment of chronic ulcers of the stomach, it should be

taken into account that these patients do not often come to the surgeon early. In a series of 140 gastric ulcers without food retention reported by Smithies ² 54 per cent of the patients had complained of disorders of digestion from 5 to 20 years before operation, while only 21 per cent had been ill less than 5 years. This certainly can not be regarded as a hasty resort to surgical relief. It must be remembered that with ulcers of this type the patient is in considerable danger without operation. In addition to the patient's primary illness and incapacity from the ulcer itself, the danger of secondary complications such as hemorrhage, perforation and the possibility of malignant degeneration is exceedingly great. In Smithies's series, hemorrhage occurred in 40 per cent, while perforation, acute, subacute or chronic, occurred in 36.4 per cent. In Graham's ³ series of 249 gastric ulcers, 23 per cent had hemorrhage before operation. It is impossible to tell what percentage of such ulcers become malignant but, in a series of carcinomas of the stomach removed at operation and reported by Wilson, ⁴ it was definitely demonstrated that more than 50 per cent of the carcinomas had developed on a previous ulcer. In 1909, Wilson ⁵ reported a study of 19 excised gastric ulcers in which he showed questionable early malignancy in the margins. Their malignancy was doubted by some well known pathologists, yet Wilson ⁴ showed five years later that four of these patients had died of cancer of the stomach. The more familiar pathologists become with the diagnosis of ulcer and cancer of the stomach, the more evidence there is to show that carcinomatous degeneration in the edges of chronic ulcers is a very common occurrence.

Excision. Other factors being equal, excision of chronic ulcers is the operation of choice, since this at once relieves the entire diseased area of the stomach and reduces to a minimum the dangers of hemorrhage, perforation and malignancy. It would seem that surgeons must give some good reason for not performing this

operation in every case. The excision of a large ulcer, especially when situated on the lesser curvature, often makes considerable deformity in the stomach. Excision of an ulcer near the cardia is difficult and often exceedingly dangerous. If near the pylorus, the resulting deformity may produce obstruction of greater or less degree. Wide excision of an ulcer on the lesser curvature is also attended with considerable risk. The nerves supplying the stomach come into its walls mostly along the lesser curvature. A wide excision at this point interferes with the muscular function of the stomach to such a degree as to cause a high mortality. The late functional results are also likely to be unsatisfactory. It is, therefore, necessary in most cases to combine a gastroenterostomy with the excision to secure the best permanent result. Ulcers in the greater curvature of the stomach, unless situated near the pylorus, are best treated by a simple excision and suture.

Perforating ulcers on the posterior wall of the stomach are often very difficult to care for on account of the adhesions which have taken place. It is sometimes not advisable to loosen all these adhesions because of the serious bleeding that may occur and the poor condition of the tissues surrounding the ulcer. In this case a transgastric excision of the ulcer is often a serviceable procedure. An opening is made in the anterior wall of the stomach through which the ulcer on the posterior wall is exposed. Excision and suture or excision by the Balfour ⁶ cautery method is then performed. The opening in the anterior wall of the stomach is sutured in the ordinary manner.

Balfour ⁶ has recently reported a method by which the ulcer-bearing area may be destroyed without doing a wide excision. His method is to free the omentum and adhesions about the ulcer exposing it as well as possible, then with a Paquelin cautery burning out the base of the ulcer, perforating the entire wall of the stomach. The aperture remaining can then be sutured and the suture-line cov-

ered with the omentum. This allows a quick and safe method of treating certain ulcers that could only be excised with a great deal of risk to the patient. It accomplishes exactly what a perforation does in that it destroys the thick connective tissue base and allows the mucous membrane edges again to come in contact. We have used this method in a great many cases of ulcer of the stomach and in some of the smaller duodenal ulcers with a great deal of satisfaction. A possible objection to the method is that the heat causes a slough which delays healing. Healing must be by secondary intention rather than primary union.

Resection. If the ulcer is near the pylorus, resection of the pyloric end of the stomach is often the safest operation since it removes the entire ulcer-bearing area and at the same time combines the good features of a gastroenterostomy. Such resection may be done in one of three ways:

First. Resection in continuity with suture of the two free ends of the stomach without gastroenterostomy. This operation is often a serviceable one if the ulcer is situated near the center of the body of the stomach or some little distance from the pylorus. The results following its use have been very satisfactory.

Second. Resection of a portion of the stomach, closure of the pylorus and gastroenterostomy. This is a very serviceable operation if the ulcers are situated well away from the pylorus or are multiple and it is often a necessary operation in perforating ulcers located on the posterior wall of the stomach in which there are a great many adhesions binding the wall of the stomach to the pancreas and adjacent structures. In our hands resection of a portion of the stomach has been attended with less mortality than the wide excision of ulcers situated on the lesser curvature without gastroenterostomy.

Third. Resection of the stomach with suture of the free end of the stomach into the first portion of the jejunum (polya) ⁷ This operation is particularly useful in all

resections of the pyloric third of the stomach. It has all the advantages of the ordinary resection and gastroenterostomy with the added advantage that it can be performed with less manipulation and in less time than the ordinary type of resection. We have not yet discovered any great disadvantages to its use and believe that it will become more popular as time proceeds.

Gastroenterostomy. In studying the physiology of the stomach one becomes convinced that a prominent feature in all chronic ulcers of the stomach either with or without obstruction is hypersecretion. Hypersecretion should be differentiated from hyperacidity. On the one hand, hyperacidity may be one of the causative factors of ulcers, while from our present knowledge we believe that hypersecretion is one of the results. We know that in other mucous surfaces in the body any irritation such as bacterial infection, chemical or mechanical irritation produces an abundant secretion of mucous. As illustrations we have the increased nasal secretions in the ordinary colds, the increase in mucus in colitis and leukorrhoea in infections of the uterus and vagina. It is reasonable to suppose that the constant irritation in ulcer, bacterial and chemical as well as mechanical, have the same effect in the stomach. At least this hypersecretion seems to be one of the causes of discomfort, and is thought by some observers when mixed with the acids of the gastric juice to continue the irritation and interfere with healing. Vomiting relieves this hypersecretion and many patients induce vomiting in order to obtain relief. The physician secures the same relief for his patient by lavage. Retention of hypersecretion is not due entirely to mechanical obstruction at the pylorus but is often due to spasm of the pylorus when the pyloric ring is patent. As long as this hypersecretion, which is hyperacid as well, remains in the stomach, the irritation and spasm continue. This seems to be one of the principal factors in the prevention of healing in ulcers. Gas-

troenterostomy without excision permits this hypersecretion to leave the stomach and thus in most instances relieves the symptoms if not actually relieving the pathologic condition. Gastroenterostomy with excision has the same value with the added benefit of removing the diseased portion of the stomach. Gastroenterostomy undoubtedly changes the physiologic condition of the stomach to a certain extent and prevents a recurrence of the condition of hypersecretion and hyperacidity previously mentioned. Therefore, when a gastroenterostomy is performed, as Sippy⁸ so aptly puts it, the patient in addition to being relieved carries with him a permanent antidote against recurrence of his disease.

A great many observers believe that hyperacidity is one of the causative factors in the production of ulcer. According to Patterson's⁹ observations on the acidity of the stomach before and after gastroenterostomy, the total acidity after a gastroenterostomy is reduced 30 per cent. He also shows that bile and pancreatic secretions were present in the stomach in 73 per cent of his cases after gastroenterostomy had been performed. He therefore believes that the chlorides in the bile and pancreatic juice neutralize a part of the acids in the stomach and account for the reduction in acidity. His observations show that the total acids are always reduced even if the free hydrochloric acid is not. If his observation is true, a gastroenterostomy should be performed in order to prevent a recurrence of the high acid content which is present so often in ulcer cases. A gastroenterostomy also allows the increased quantity of mucus to escape from the stomach. This mucus is indigestible and when mixed with the acids becomes irritating instead of protective. In addition Kocher¹⁰ and Paterson⁹ believe that carcinoma develops on ulcer in less than three per cent of cases after a gastroenterostomy for chronic ulcer has been performed. If these observations are correct, it seems to be quite essential that a gastroenter-

ostomy should be performed in every case of chronic ulcer of the stomach whether or not they are excised. It has been stated that with a patent pylorus it is useless to perform a gastroenterostomy because nature will not maintain two openings in the stomach and the artificial mouth will close. Hartman¹² has performed experiments on animals, as well as making observations on men, which seem to show that if a gastroenterostomy is properly made and there is a new opening in the pyloric end of the stomach, the new mouth does not close. He was able to trace but forty-five cases in the literature in which obliteration of the new mouth had occurred. Seven of these were due to ulcer and contraction at the gastrojejunal mouth, 23 were button anastomoses, and in three the Roux or Y-shaped gastroenterostomy had been performed. Hartmann believes that the fundus of the stomach is the retaining end and states that in observations made on the strength of the contractions in the fundus the pressure was from 5 to 10 mm. of mercury, while the pressure in the pyloric end of the stomach taken under the same conditions was from 40 to 80 mm. of mercury. He, therefore, concludes that the pylorus is the normal emptying part of the stomach and that, if a gastroenterostomy is placed on the pyloric end of the stomach, there is little or no tendency for it to close whether the pylorus is blocked or not. Our observations coincide with Hartmann's that in a properly performed gastroenterostomy placed on the pyloric end of the stomach there is little or no tendency for the new mouth to close. We also believe that blockage of the pylorus is not necessary for the relief of the patient but that it is advisable in large ulcers about the pylorus with impending perforation. Hartmann made observations on 19 patients from 1 to 11 years after gastroenterostomy had been performed. All these patients were without obstruction before operation and had no demonstrable stenosis of the pylorus at operation. Eleven times all the food passed

through the anastomosis, seven times the food passed through both the pylorus and the new opening and only once did everything pass through the pylorus. Hartmann believes that a fluoroscopic examination is necessary to determine where the food leaves the stomach and that a plate may be absolutely misleading, his idea being that the plate may show bismuth in the small intestine which is covered by the stomach and that it may be inferred that this food left the stomach by the pylorus when in fact it left by the new mouth.

....*Hour-Glass Stomach.* The hour-glass stomach produced by large contracting ulcers is always a difficult condition to handle. No general rules for treatment can be made. Each case must be cared for individually by performing an operation which best relieves the particular deformity present. A resection is sometimes necessary. A gastro-gastrostomy is often the best and safest operation. A gastroenterostomy will sometimes suffice. A plastic operation of the Heinecke-Miculicz type can sometimes be utilized. Often a combination of one or more of these procedures is imperative.

Jejunostomy. Occasionally a stomach is encountered with such extensive ulceration and such extensive thickening of the walls that any operation on the stomach is exceedingly dangerous on account of the possibility of perforation. In such cases a jejunostomy may be necessary. This can be performed by one of the well-known methods such as the Kader, the Senn, or the Witzel. Feeding through this jejunostomy may be continued for months if necessary allowing the stomach to remain absolutely at rest until it is in a condition to either again take up its normal function or allow an operation on its walls to be performed with safety.

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The Treatment of Syphilogenous Diseases of the Nervous System With Salvarsanized Serum.

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The treatment of syphilis of the nervous system in the past has been very unsatisfactory. The cures were few, and the outlook was very bad until Swift and Ellis devised a method of treating such cases by injecting salvarsanized serum into the spinal canal. This opened a new and promising era in neurological therapeutics, which has stimulated further investigation with satisfactory results thus far.

It is a well-known fact that the nervous system is a very common site for spirochaetal growth and development. Why that should be, I am unable to say; nevertheless it is so. The probabilities are that there is an increased susceptibility of the nervous system to syphilitic infection, and once this has begun it progresses slowly and insidiously, producing organic changes in the brain and cord, aided most likely by a low resistance to the infection. These organic changes referred to are classified by Byrnes as follows:

1. Syphilitic meningitis, both secondary and tertiary.

2. Cerebro-spinal syphilis, such as meningo-myelitis, gummatous infiltration, tabes and paresis.

3. Cerebro-spinal syphilitic arteritis.

So that the spirochetes may attack the covering, the vasculature or the nerve tissue of the brain and cord. The infection may be so severe as to affect all three structures simultaneously.

How soon after the development of the primary sore may the nervous system become involved? Authorities differ; Nauyn claims that infection of the brain or cord in the majority of cases takes place during the first year. Braus maintains that in fifty per cent of his cases the nervous system was involved within the first year. Fournier showed that some of his cases developed nerve syphilis within from three to six months. The consensus of opinion seems to be that involvement of the nervous system occurs a few months after the development of the primary sore, but that distinct symptoms may not be apparent for years after the contraction of the disease.

It probably is of interest and importance to know the percentage of syphilitics developing cerebro-spinal lues either temporarily or permanently. Here again investigators differ. Ravaut found abnormal changes in the spinal fluid of 70 per cent of those having secondary syphilis. Altman and Dreyfus put it at 80 per cent, and Gennerich claims to have found abnormal inflammatory products in 90 per cent of cases of secondary syphilis. Hjellmann has figures showing that only from fifteen to twenty-five per thousand of syphilitics develop organic changes of the brain or cord. Raumont found that of 3,400 cases, 8 per cent developed lues of the nervous system. Fournier investigated over 4,000 cases of syphilis and discovered nervous manifestations in over 1,000 of them, but only 416 showed involvement of the cerebro-spinal axis with more or less diffuse lesions. In other words about 10 per cent had luetic

changes of the nervous system. The investigations of Mattauschek and Pilcz as to the course of the disease in 4,134 officers in the Austrian army, who had been infected between the years 1880 and 1900, proved that 198 developed paresis and 113 tabes. Of the total number of tabetics 11.93 per cent developed paresis; 8.18 per cent had optic atrophy. 132 of the officers suffered from cerebro-spinal lues, most frequently the endarteritic form, and 80 cases showed various psychoses. The above facts prove conclusively that in the past the treatment of this disease had been ineffective until the genius of Ehrlich discovered a specific, which it is to be hoped will result in more cures and fewer complications.

The spinal fluid which comes in intimate contact with the nerve tissue and blood vessels of the cerebro-spinal system in the event of any luetic change, contains products of inflammation and degeneration. It is through the medium of this fluid that we are enabled to carry salvarsan to the remotest regions of the cerebro-spinal axis and in this way combat the spirochetes or their toxins. A study of this fluid will not only help us in the diagnosis of the nervous condition present, but we may be enabled to give a prognosis of the case. The latest investigations have shown that this fluid has a dual source, namely the choroid plexuses and the cerebral capillaries, and that it escapes largely by way of the longitudinal sinuses and also along the nerves.

The products of luetic infection of the cerebro-spinal system are:

1. A pleocytosis, that is an increase of the lymphocytes of the fluid; normally there being about 7 or 8 to the c.m.m.

2. An increased globulin content, due probably to a greater transudation of the serum through the capillaries.

3. A positive Wassermann reaction due to the syphilitic antibodies.

Now what has been the effect of intravenous injections of salvarsan upon syphilogenous diseases of the nervous system? It is rather difficult to draw con-

clusions just yet. The improvement noted by various investigators might have been temporary, especially in tabes and paresis. It is reasonable to suppose that, in syphilis of the brain or cord with organic changes other than gummatous, salvarsan will have little or no effect, except that it might inhibit the spread of the luetic infection by killing the spirochetes. For anyone to maintain that salvarsan will clear up the ataxia of tabes or an advanced optic atrophy, is preposterous, especially so after intravenous treatments; so that I would say, intravenous injections of salvarsan may do good in early or beginning cases of lues of the brain or cord, but when organic changes have formed it is practically worthless.

What then can be done for those suffering from lues of the nervous system? If the spirochetes are present in the tissues we must try to get the salvarsan in contact with them. In that way only may we expect to kill them. Injecting the drug into the subarachnoid space and allowing it to get into intimate contact with the nerve cells is, I think, the only rational method.

C. D. Camp showed that after as many as seventeen intravenous injections of salvarsan, he was unable to detect a trace of the drug in the spinal fluid. Dandy and Blackfan demonstrated that there is a free passage of spinal fluid into the blood stream, but the reverse is not true, however, for substances introduced intravenously and intra-arterially do not enter the cerebro-spinal fluid. Tilney and Woolsey, in their studies in vital staining, introduced solutions of trypan-blue subcutaneously, intra-arterially, intravenously and intraspinally. By the first two methods they found the skin, thoracic and abdominal viscera stained readily, but the central nervous system on the other hand remained entirely free from stain. Given intravenously, the stain reached the pia mater and the dura, but did not penetrate into the nerve tissue. After an intraspinal injection, however, using a weaker solution of the dye, the meninges

were found deeply stained and the dye had penetrated deeply into the nerve tissue and through the walls of the veins and capillaries.

Flexner, Lamar, Wollstein and others have maintained and demonstrated that diseases of the meninges can only be combated by subarachnoid medication. We know that the subdural fluid and that of the ventricles communicate normally through the foramen of Magendie at the apex of the fourth ventricle, and through the foramina of Luschka at the outer margins of this same ventricle, so that on anatomic grounds and on the basis of experimental evidence, we are justified in our belief that better results must ensue in early cases of syphilis of the nervous system, if subdural treatment is resorted to.

It was Swift and Ellis who first carried out a series of experiments at the Rockefeller Institute in intradural therapy with salvarsanized serum. Their method was to give the patient an intravenous injection of the drug, and an hour later to withdraw 40 or 50 c.c. of blood from the vein, centrifugate it, and use the serum in different strengths. The original strength was 12 c.c. of serum to 18 c.c. of normal salt solution making a 40 per cent salvarsanized serum mixture. This was then heated at a temperature of 56 degrees centigrade for half an hour. A lumbar puncture was then done, spinal fluid was withdrawn and the solution was allowed to run in by gravity. These investigators had much success with their method of treating lues of the brain and cord. The reaction following the injection is very slight, and there is no danger whatever to the patient. While the Swift-Ellis method is of value, nevertheless there is not enough salvarsan in the serum used to be very spirochaeticidal. This is the chief objection to the Swift-Ellis method.

Hanson S. Ogilvie, of the Neurological Institute in New York City, presented a report before the American Medical Association last June on the results of intraspinal treatment of syphilis of the central

nervous system with salvarsanized serum of standard strength. The advantages of this method are first, that you can regulate the amount of salvarsan to be used; second, the fresh drug comes in contact with the spirochetes, which may be in the nerve cells. Ogilvie suspends between 0.25 to 1.0 mg. of salvarsan in the patient's own serum, incubates the mixture for three quarters of an hour at a temperature of 37 degrees centigrade and then heats it at 55 degrees centigrade for thirty minutes. The reason for using serum as a vehicle, is that salvarsan attains its maximum spirochaeticidal power when in combination with blood serum and Swift and Ellis have demonstrated that this action is enhanced by heating the mixture at a temperature of 55 degrees for thirty minutes. The latter step in the preparation of the serum makes it imperative that we use salvarsan and not neosalvarsan, as the latter is very unstable and it is rather impracticable to subject it to a high temperature, as the resulting product would be too irritating to the meninges. Ogilvie suggests that a patient get an injection every two weeks or so, depending upon the symptomatology and the laboratory findings in the spinal fluid.

What benefit may we expect from such treatment? Ogilvie and others maintain that they noted not only improvement in the spinal fluid with regards to the cell count, globulin content and Wassermann reaction, but that there was also marked clinical improvement. In my cases I studied particularly the clinical side and noted any changes for the better, especially in the subjective symptomatology. While in the cases reported there was laboratory improvement of the spinal fluid, the Wassermann reaction remained steadfastly positive, showing that it is no easy matter to kill off all the spirochetes. Examination of the spinal fluid of a paretic, who had had two intradural injections, showed an increased pressure and a slightly increased globulin content, but no alteration of the Wassermann. This is easily explained by the fact that as a result of

the salvarsan injection there followed probably an irritation of the meninges with a slight reaction, and this resulted in an increased transudation of both serum and lymphocytes.

One case in particular showed such marked improvement after two intraspinal injections of 1.0 mg. of salvarsan in serum, that it is worthy of mention. The patient was a young man who had had a cerebral hemorrhage. He had a right-sided hemiplegia; his mentality was bad; he had delusions and hallucinations. The blood Wassermann was negative; the spinal fluid Wassermann was positive (four plus). A few days after his first treatment patient began to improve; hemiplegia became less marked, delusions cleared and he became more tractable. Two weeks after the second injection he showed such vast improvement that he was discharged from the hospital, and in another fortnight he was able to go to work. Patient had been on iodides and mercury for sometime. These had not the slightest action on his condition.

Let us turn to the question of prophylaxis of nerve syphilis and see what might be accomplished with intradural injections of salvarsanized serum. If it is a fact that between 70 and 90 per cent of syphilitics in the secondary stage have a temporary involvement of the cord and brain, which, of course, means that the spirochetes are present, why would it not be logical to give every syphilitic at the outset intraspinal injections of salvarsan with the idea of combating the infection? These injections could be given once a month and the spinal fluid watched and examined for any signs of nervous system involvement. What the result of this treatment would be, time would tell. Cerebro-spinal syphilis is much too common these days, and it is about time that the profession begin a crusade of eradication and prevention.

Case 1—Paresis. Patient is thirty-three years of age, denies having had syphilis. Has always been in good health until about three years ago when it was

noticed that he was becoming very nervous. There was a well defined tremor of both hands and tongue, hesitating speech and twitching of the muscles of the face. The pupils showed no reaction to distance or light and one was larger than the other. There was loss of knee jerk, diminished sensation of the lower extremities and a vague Romberg. Mentality has been fair and his memory very good. Patient is a merchant and for the past year or so while in the store, he avoided his customers and friends, and was retiring in his ways. He complained of headache a great deal; this, at times, was very severe. Wassermann reaction of the blood serum was negative on two occasions. Wassermann of the spinal fluid positive two plus, using one-fourth of a c.c. of fluid. Nonne test positive. Noguchi butyric acid test also positive, and there was a moderate pleocytosis. Patient had received intramuscular injections of salvarsan suspended in fat, also intramuscular injections of mercury salicylate and mercury succinimide with fair results. On November 21st I gave him an intravenous injection of 0.4 gram of salvarsan and the following day he received an intraspinal injection of 30 c.c. of 40 per cent salvarsanized serum (Swift and Ellis method). Patient had a severe reaction following this treatment, but was out in two days. On January 14th, 1915, he received an intraspinal injection of 15 c.c. of serum containing 1.0 mg. of salvarsan. A slight reaction followed, such as headache, pain in lower limbs and back and a temperature of 101. All of these symptoms subsided within forty-eight hours. On February 9th he received an intraspinal injection of 12 c.c. of serum contain 1.0 mg. of salvarsan. The reaction was very mild indeed and patient was out in two days. On February 26th he received another injection of 1.0 mg. of salvarsan in 12 c.c. of serum with very slight reaction following. Examination of the spinal fluid gave Wassermann positive two plus and a decreased globulin content. At present his mentality is very much improved. He is more sociable, his

ideas are more connected, he thinks more quickly and takes a greater interest in his business. He no longer has spasm of the muscles of the face and stutters very little. His gait is steadier and firmer, and he is gaining in weight. On the whole, one can see a marked improvement in the patient's condition.

Case 2. Male—Age forty-two. Locomotor ataxia. (Referred by Dr. A. F. Yohe). Patient had the usual diseases of childhood. Contracted syphilis twenty years ago. In 1906 symptoms of unsteadiness appeared. Has a positive Romberg. Has gastro-intestinal crises. Incontinence of urine present. Pupils do not react to light or distance. Has partial loss of sensation of lower extremities. Knee jerks absent. Spinal fluid positive four plus. December 11th, 1914, he was given an intraspinal injection of serum containing 0.5 mg. of salvarsan. On January 22nd, 1915, patient was given another intraspinal injection of 1.0 mg. of salvarsan in serum. He claims that his gait is steadier and is now able to walk without canes for a short distance.

Case 3. E. M. Male, age thirty-seven. Locomotor ataxia. (Referred by Dr. C. J. McGee). Patient is a clerk by occupation. Is married and has two healthy children. In 1905 he contracted syphilis. In 1910 patient suffered from headaches continually until 1911. In 1913 patient noticed first an unusual tenderness of his right leg and foot, which was subsequently followed by a gradual loss of sensation in same. The left leg and foot are only slightly affected. He began to have difficulty in walking, made mis-steps and was unable to walk at all in the dark. Has a marked ataxia of right foot at present. Left leg and foot are fairly normal. Complains of lancinating pain in the right leg every two or three days. Pupils do not react to distance or light. Sexual power normal. Has perfect control of rectum and bladder. Knee jerk absent in both knees. Examination of spinal fluid shows an increased globulin content and a positive Wassermann four plus. February

11th, 1915, he was given 0.5 mg. of salvarsan in serum intraspinally. Temperature rose to 99.3, pulse was rather slow, and the reaction disappeared in forty-eight hours. He was given a second injection on February 22nd; a slight reaction followed. Headache and pain in legs disappeared in twenty-four hours. Examination of the spinal fluid shows a positive Wassermann two plus and globulin reduction. At present patient is able to walk better and general condition is much improved.

Case 4. J. B. Male—Age thirty-eight. Cerebral Lues. (Referred by Dr. P. W. Darrah). Patient is a fireman. Family history negative, past history negative. Contracted syphilis in 1897. Present trouble dates back to two years ago when patient became very irritable and highly nervous, so much so that he began drinking to excess, thinking that would allay his nervousness. He soon began to lose strength. In December, 1914, patient experienced dizziness and severe pain on the right side of his head. He then began to have spells of semi-consciousness. These lasted two or three hours. Nausea and vomiting were present at times. Memory poor and mentality very much impaired. Patient began to have delusions and hallucinations. He had to be confined in a hospital and watched closely, owing to a disposition to escape. Patient then suffered a cerebral hemorrhage, with a resulting left hemiplegia. Left pupil larger than right, difficulty in speech present, and tongue was turned to the left. Examination of blood gave a negative Wassermann. Spinal fluid showed a pleocytosis, increase of globulin, and a positive Wassermann four plus. He was given two injections of 1.0 mg. of salvarsan two weeks apart. Patient began to improve rapidly and in a few weeks time his hemiplegia cleared up and he returned to his usual work.

From the foregoing facts one may draw the following conclusions:

1. Lues of the nervous system may complicate the primary, secondary or tertiary stage of a general syphilitic infection.

2. It is best treated by injecting salvarsan intradurally, according to the method of Ogilvie. Care must be taken to inject no more than 1.0 mg. of salvarsan at a time.

3. It is suggested that every syphilitic receive intraspinal injections of salvarsan in conjunction with the routine treatment as a prophylaxis against nervous system involvement.

—————R—————

Acute Intestinal Obstruction.

HUGH L. CHARLES, M. D., Atchison, Kan.

Read before Kansas Medical Society, Kansas City, Kan., May, 1915.

While considerable progress is being made in the various fields of surgery, little has been added during recent years to our knowledge of the conditions incident to intestinal obstruction. Because of the fact, however, that there are probably more deaths produced by intestinal obstruction than by any other acute surgical condition in the abdomen, and as this subject has been brought to my attention several times very forcibly during the past year, I feel that I need offer no apology for preparing this paper.

When death occurs in these cases, it is usually due to a form of toxemia, but we have no criterion by which we may judge accurately the severity of the toxemia in any particular case. No laboratory or experimental work has so far thrown any light on this subject so that, except for the bismuth meal in x-ray work, which can not be employed in acute cases, we are still very much in the dark about the nature and intensity of the toxemia in any particular case.

Cases in whom no localized tenderness exists but in whom habitual constipation is present and severe cramps occur at times, are quite apt to belong to the embryonic band type of cases, and this mechanical condition is apt to make more and more trouble as the patient grows older, until complete obstruction may eventually ensue.

I wish to report several cases on which I have operated during the past year.

Case 1: Miss G. T., single, age 22, school teacher. She had recurrent attacks of pain in belly during the past three years, vomited occasionally, had always been very constipated but was well nourished; otherwise, symptoms were negative. These attacks at first lasted only a few minutes and recurred at intervals of two or three months; later, they increased in severity and duration, finally lasting two or three days and requiring opiates. During the last attack she was hurriedly brought to the hospital with a diagnosis of acute appendicitis. Indeed, this appeared to be the trouble, except that the distention seemed to be rather excessive. White blood count, 16,000; urine, negative. The pain was localized over McBurney's point. An incision through the right rectus muscle showed the appendix swollen and inflamed and containing two concretions. It was, therefore, removed. Just before closing the abdomen, I noticed what seemed to be the distended stomach crowding into the wound. Upon examination, this mass proved, however, to be a portion of the transverse colon distended to the size of a baby's head. Further investigation showed a band the size of a lead pencil just below the hepatic flexure on the transverse colon, causing a complete obstruction. This band was dissected loose and, in a few minutes, a large amount of gas and feces escaped from the rectum. The patient made an uninterrupted recovery. This case shows how a case of obstruction may be overlooked when another definite lesion is found which seems to explain the conditions present. A general examination should therefore always be made when the abdomen is opened.

Case 2: Miss L. Mc., age 28, white, had been operated on three weeks before in a neighboring city for appendicitis, a Baldy operation having also been performed at the same time. Although the surgeon had squirted olive oil into the abdomen before closing it in order to prevent adhesions, the morning I saw her she had typical symptoms of obstruction

of the bowels—the only case I have ever seen showing the typical text book symptoms, such as very severe pain, intermittent in character, with vomiting of fecal material, meteorism, borborygmus, etc. I advised her to get in communication with her surgeon at once as, in my opinion, she should be operated on immediately. Her surgeon, however, only advised enemas, etc., which the patient had already used on the advice of the family physician. After waiting for two hours, she decided to go to the hospital to be operated on immediately. I made the incision through the recent scar, but found no adhesions to the scar, or to the appendiceal stump. In the upper part of the abdomen the small intestines were, however, matted together in a bunch, being absolutely grown to each other, some coils being adherent parallel to each other while others were adherent at different angles. It was a very tedious task to separate them. The peritoneal coats had to be taken off completely in places for three or four inches. It took quite a little time, therefore, before the obstruction could be relieved completely and the patient, consequently, became very weak on the table, her pulse going to 160 and beyond. The abdomen was closed quickly, a small tube inserted and the patient put to bed.

She made a perfect recovery, although it was thought necessary to give her 1-25 gr. eserine sulphate every four hours for four days following the operation.

Incidentally, I might mention that she has tried to commit suicide twice since the operation and has failed. Possibly her powers of resistance are so great, that as the saying goes, "She couldn't die if she wanted to."

Case 3: Mrs. H., age 68, housewife, German, mother of eight children, had been very active up to a week before illness began, never constipated, appetite very good. The patient was very fond of grapes and had eaten very heartily of the fruit during the previous two weeks when, one morning while at stool, she had a severe abdominal pain gravitating to the

rectum. She was carried to bed and several enemas were given which returned clear. Several kinds of cathartics were employed but were of no avail and only made the condition worse. I saw the patient early next morning and advised immediate operation. Palpation of abdomen and examination through rectum revealed a large mass on the left side. No blood count made; urine was negative. Incision through the left rectus muscle exposed a large diverticulitis of sigmoid. A resection with end to end anastomosis was done and the belly closed, with the exception of a small drain. Patient died on seventh day following the operation, apparently from starvation as she had had several good bowel movements and had vomited but very little following the operation. She refused to eat, however, and grew weaker and weaker from day to day. Pathological examination showed a multiple diverticulum completely filled with grape seeds some of which had sprouted.

Case 4: Miss B. S., German, dressmaker. I did not see this patient until an hour before operation but obtained an indefinite history of an operation performed about one year before. The patient had become more constipated since the operation, which I learned later consisted of an appendectomy and a myomectomy for a small fibroid of the uterus. She had for years been considered more or less hysterical and nervous. On the Sunday afternoon before I saw her, she had taken an automobile ride with friends when a slight accident occurred, but the car was not damaged nor any of the occupants hurt, but the patient became very hysterical. On the following Monday and Tuesday, she complained of pain in the abdomen, but her bowels moved with enemas and she seemed relieved for a time. Nobody seemed to pay much attention to her complaints until Thursday noon, when she began to bloat up considerably and appeared to know little of what was going on around her. Her condition became progressively worse. I saw

her Thursday night about ten o'clock and she was practically moribund. I made a right rectus incision, preferring this to going through the old scar, as it would save time. A portion of the ileum, about a foot from the cæcum, was completely embedded in the uterine wall, involving the entire circumference of the gut, and shutting it off completely. I released it as soon as possible, practically doing a hysterectomy. Immediately after the operation, gas escaped from the bowels and feces filled the operating table so that it looked as if she had a chance to recover. She had received practically no anesthetic and seemed quite a little better for a short while, but died a few hours later.

Case 5: Miss M., age 24, operated on about one year ago for appendicitis and pelvic trouble with good result, excepting that a chronic constipation, which she had before the operation, remained. Patient gained in weight and felt good except that she had cramps once or twice a month which she attributed to errors in diet. Patient took sick on a Saturday night with severe pain on the right side of abdomen and vomited once, temperature 101. After a few enemas, she felt much better and slept comfortably. On Sunday she became worse and was brought to the hospital. White blood count, 15,700; urine, negative; pain and vomiting increased. Monday at one o'clock p. m., I made a long right rectus incision, examined the gall bladder and duodenum but found nothing of any consequence and so examined the old field of operation. In the right iliac fossa was a constricting band evidently embryonic in origin which extended entirely around the intestine and had included in the constriction a second loop of intestine which was nearly gangrenous. There was a great deal of serum in the abdomen and a culture proved it to be infected with colon bacilli. The constricting band was divided and the intestine returned to normal color after using some hot towels. Patient had a colon infection of wound for a few days but it soon cleared up under autogenous

vaccine and the patient made a good recovery.

There is no way by which the amount of poison secreted by the mucosa or produced by the intestinal contents above the obstruction, can be estimated, nor is there any way known for determining the amount of serum absorbed through the distended, paralyzed and, often, traumatized gut wall previous to opening the belly.

Whenever a patient comes with symptoms of intestinal obstruction, who has previously had an abdominal operation, we shall rarely err if we diagnose obstruction by a band. Bands, which result from operative procedure are more dangerous because they are more circumscribed than those which arise spontaneously after inflammation, or are of the embryonic type.

I have observed quite a number of obstruction cases and the cause of death is a question. Some patients seem to die purely from exhaustion due to starvation. In other cases we have associated a pathological process with the obstruction or perhaps causing it, and have other factors to deal with even if the symptoms are acute. As a rule, the immediate prognosis is more favorable when a slow malignant growth is causing the acute condition.

The amount of liquids drained from the tissues of a body in these cases is very great, and for this reason, simple enterostomy is frequently to be preferred to any other treatment. In late cases, especially, this procedure, done quickly, is the proper treatment.

Until some definite remedy of the nature of a vaccine, or something else, is found for the toxin resulting from the obstruction, the mortality will continue high and the relief from this excessive mortality can at present be found only in early operative interference.

—R—

Progress In Infant Feeding.

CHAS. STEIN, M. D., Glasco, Kansas.

Read before Kansas Medical Society, Kansas City, Kan., May, 1915.

Pediatricists in this country and abroad have in the last few years introduced many changes in the methods of infant feeding. It is the purpose of this paper to give an account of some of these.

In the first place, let us consider the American method, or percentage method of substitute feeding, whose chief advocate has been Rotch. It aims, by modifying the composition of cow's milk, adding and subtracting various ingredients, to make it conform as nearly as possible to human milk. This method has been falling into disrepute and is being supplanted by other and simpler methods because of the following objections.

Difficult and intricate calculations are necessary to compute the large number of formulas required to meet the constantly varying conditions of infant life, and the general practitioner is not usually an expert at figures.

The formulas, after they are computed, are difficult to compound and require expert training to be handled with any degree of accuracy. Milk stations, with specially trained assistants, such as we find only in the larger centers, to which the physician may send his prescriptions, are necessary to carry out with any degree of satisfaction the percentage method or American method of substitute feeding. The cost, too, of these scientifically prepared products is, to many of the poorer classes, absolutely prohibitive.

The principal ingredients with which we have to deal in the preparation of foods for infants are fats, carbohydrates and protein. We will speak of these separately. The percentage of fat in the above-mentioned method of feeding is usually placed at 4 per cent. While this amount of fat in cows milk is well taken care of by a great many infants, it has been the most frequent cause of digestive disturbances. In the past, we held that the proteids were the most difficult of diges-

tion and required our most painstaking care and manipulations to make the formulas agree with the child. Now we have learned that it is not the proteids we have to look out for, that the infant's stomach digests them readily, in fact, that they are practically never the cause of digestive disturbances, but that they favor the process of digestion and actually inhibit fermentation in the digestive tract. Hence the great value of the Eiweismilch or albumen milk of Finkelstein, which contains a high percentage of protein and a very low percentage of fats and sugar.

A large percentage of infants are unable to digest the 4 per cent of fat of top milk formulas. Many revolt against even a much smaller percentage, while quite a large number of cases cannot digest the fat of cows milk in any form or quantity whatsoever. Of course, for such extreme cases the only remedy is human milk as the infant cannot like long, much less thrive, without a certain amount of fat in some form. It is the fats then that we have to look out for in our milk formulas and not the proteids. And it is the high percentage of fats in top milk or percentage formulas that have done more to bring it into disrepute than anything else.

The proteids, as already mentioned, are easily taken care of in infant digestion and practically never cause digestive disturbances. This is a strong statement in the face of our past beliefs on this subject, but it is a fact that has been well substantiated by numerous observers in this field of investigation.

Another objection to the percentage method is the two hour period of feeding that is found in all the formulas. This does not give the infant's stomach time to empty itself, therefore leads to indigestion and is a frequent cause of vomiting. The capacity of the infant's stomach has been generally under-estimated. It can take a sufficient amount of food to make a four hour interval well adapted to its needs. This period is found practical and is being advocated by authors quite generally. Night feeding, too, is

falling into disfavor, except in selected cases and with the possible exception of one feeding per night the first month or six weeks of the infant's life. These periods are equally well adapted to both breast and substitute feeding.

The addition of lime water to cows milk is based on the belief that human milk is alkaline in reaction, also to prevent the formation of large kurds. Whereas we know that human milk is practically neutral, giving even a slight acid reaction with the phenolphthalein test. Hence lime water and the other alkalies, sodium acetate and potassium bicarbonate, are superfluous and even retard digestion except in selected cases where an alkali is clearly indicated. And to produce a fine coagulum a thin gruel of one of the cereals answers the purpose better than the alkalies.

Our ideas also in regard to the use of carbohydrates in making up baby foods have changed considerably in recent years. The most ancient method of modification of cows milk consisted in the simple addition of water and cane sugar.

Cane sugar answers the purpose quite as well as any other in most cases, also having the added advantage of much greater cheapness and availability. Lactose, however, is slightly more laxative than cane sugar, hence would be indicated in some cases where constipation is a factor.

Maltose usually combined with dextrin is also coming into greater use and is indicated where fermentative conditions are present. It may be fed throughout infancy taking the place of lactose. Starches in the form of thin gruels, prepared usually from barley or oat meal, occupy an important place in milk modification. As already stated they take the place of lime water in producing a fine coagulum making it physically similar to that of human milk. And they are not binding nor retard digestion as is often the case with lime water.

I have attempted to show in a brief manner that the percentage method or

American method of substitute feeding of infants no longer conforms with our knowledge of the principles involved, or with the experience gained by numerous observers in this branch of medicine.

You will ask what there is to offer in its place. Wachenheim in his new book on Infant Feeding, after reviewing about a dozen different methods of substitute feeding, has this to say on the subject: "A system of artificial feeding that really meets the requirements is still awaiting discovery; the question is whether human ingenuity will ever prove itself equal to the task. In the meantime there remains only one proper and reliable way to feed a baby and that is on breast-milk; artificial feeding is, so far, only a makeshift, a trial and a vexation in a large per centage of cases, and only tolerably satisfactory when most successful."

The general trend is towards greater simplicity and away from elaborate formulas and intricate chemical manipulations of food products. The biological side of the question is receiving greater emphasis. Careful study of the particular needs of each individual case is of the greatest importance to success. Chapin in a recent paper says: "The latest scientific studies in nutrition point favorably to great simplicity in the preparation of artificial food for infants if the biological side is properly emphasized. The principal ingredient, cows milk, if scientifically produced and handled may be simply diluted in right proportion to the age, keeping in mind that none of its ingredients—protein, fats or carbohydrates—must be long reduced below what is known to be their average content in human milk."

Jacobi has done more than any other man to lead the profession back to simpler methods of food preparation for infants. He simply dilutes boiled milk with barley or oat meal water to make up the deficit in carbohydrates. The barley water is prepared by boiling an ounce of barley in a pint of water adding a pinch of salt and straining. To this is added an ounce of cane sugar and from a half

pint to a pint of boiled milk, according to the infant's age. These then are not new things. Many of you practitioners have no doubt followed and are practicing today these simple methods of diluting cows milk, and thus conforming with the latest thought on the subject. The general trend in all branches of medicine is towards greater complexity. Here, however, we are returning to the simple. The calculations are not difficult to make, the formulas are easy to compound and the materials are found in every household. However, our best thoughts and study should be concentrated on every child and its needs taken into careful consideration in order to attain success with this new, old, simplified method of feeding.

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Sanitary Bacteriologist.

The United States Civil Service Commission announces an open competitive examination for sanitary bacteriologist, for both men and women, on September 22, 1915. From the register of eligibles resulting from this examination certification will be made to fill several vacancies in this position in the Public Health Service, for duty in the Hygienic Laboratory, Washington, D. C., or for field service, at a salary of \$1,500 a year, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer or promotion.

The duties of this position will be to assist in the study of stream pollution, water supplies, and sewage disposal, and other public-health problems. Applicants should be competent to make the usual chemical and bacteriological examination of water and sewage.

Graduation from a scientific course in a college or university of recognized standing or the degree of M. D. is a prerequisite for consideration for this position.

Applicants must have reached their twentieth but not their thirty-fifth birthday on the date of the examination.

THE JOURNAL

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W. E. McVEY, M.D. - - - - Editor

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They Don't Agree.

Some of the colonels and lesser officers in the allied armies of public health men seem to differ in their ideas of the strategic positions and the most effective maneuvers in the war against contagious diseases. We quote from the Topeka Capital, August 25th, the following statement which was attributed to Dr. Harold B. Wood, the expert health officer imported from Chicago by the City Commissioners:

"Whooping cough is a very dangerous disease, especially among children," said Doctor Wood yesterday. "It is contagious and should be carefully quarantined. Children afflicted should be kept from other children until the cough has entirely disappeared. People generally have not recognized the seriousness of the disease and do not know the high per cent of cases which result fatally. During the last three years there have been fourteen deaths from whooping cough in Topeka. Only pneumonia and prematurity have a higher death rate among children."

Comparing the death rate from whooping cough in Topeka with that in other towns and in other states we find no cause for censure of the health department and no cause for serious alarm on the part of the people. There are at least ten cities

in Pennsylvania, where millions are appropriated for the use of its health department, in which the death rate from whooping cough for one year exceeds that in Topeka for three years. There are less than that number of cities in Pennsylvania reporting an annual death rate, from this disease, that is less for two consecutive years than is the annual rate in Topeka for three consecutive years.

The suggestion of Dr. Wood that a modified quarantine should be maintained until the cough has entirely disappeared is at variance with some of the late investigations that have been reported. We quote the following from an article in the New York Medical Journal, May 22nd, by Dr. Paul Luttinger of the Research Laboratories of the Department of Health of the City of New York:

"If we admit the Bordet-Gengou etiology of pertussis, we must free ourselves from a few superstitions regarding whooping cough. One of these is the infectiousness of the paroxysmal stage, which like that of the scales in scarlet fever, seems to have been unduly exaggerated. The fact that the Bordet-Gengou bacillus has been most often found in the sputum of the catarrhal and rarely later than the first week of the paroxysmal stage, points to the early part of the disease as the most infectious and there would seem to be no necessity for the child to be kept in the house for more than a week after the whoop appears. If accompanied by a competent guardian who takes care to collect the expectoration in a paper bag to be subsequently burned, and sees to it that the child does not whoop or sneeze in other children's faces, the pertussis patient may be allowed to be out of doors from the beginning.

"The placarding of homes where pertussis exists and the wearing of arm bands by the whoopers which had been advocated by some pediatricists, also seems to be of doubtful utility in all except the acute cases. Not because such measures are annoying or humiliating to the individual sufferer, but on account of the impossibility

ity of reaching the abortive cases, those in the catarrhal stage and the healthy carriers who are, perhaps, the most dangerous disseminators of infection."

In the prevention of measles it would seem that the restriction of the patient for more than a few days after the eruption has appeared is of much less importance than the quarantine of those who have been exposed. Kerley says that measles may be transmitted from the beginning of the earliest catarrhal symptoms, which become manifest two or three days before the appearance of the rash. Goldberger and Anderson proved that the blood in measles is infected before the appearance of the rash and during efflorescence of the eruption, while the infectivity decreases twenty-four hours after the eruption has appeared. The buccal and nasal secretions are also infective at the time of the appearance of the eruption and for forty-eight hours afterward. The desquamating scales are not infective.

From this it would appear that the greater part of the infective period in measles has passed before the diagnosis is usually made. From the investigations cited it would appear that there is no evidence of infectivity forty-eight hours after the appearance of the eruption. The period of incubation ranges from seven to fourteen days and, since the most infectious period begins several days before the eruption appears, the most effective method of controlling the spread of this disease would seem to be to turn the patient loose and corral all those who had been exposed for a period of at least two weeks.

There is some justification for the prolonged quarantine of scarlet fever cases in the fact that little or nothing is known of the nature of the infecting agent. Kerley insists that it is the least contagious of the contagious diseases, but we maintain an absolute quarantine for twenty-eight days and a modified quarantine for ten days longer. This is on the theory that the infection is carried by cutaneous scales during the period of desquamation.

Authorities are beginning to abandon this theory and are putting more stress upon the nasal and aural discharges as sources of infection. There are many mild cases of scarlet fever that go unrecognized and some of these have more likely been the sources of infection in those cases which have been ascribed to infection carried in letters, books, old clothes, etc. Close observers are not willing to accept these fanciful theories in explanation of cases of obscure origin. It may be necessary for the health officers to present some more definite evidence of the infectivity of the desquamating scales or reduce the period of quarantine considerably.

—R—

"Doctors Versus Folks."

Dr. Robert T. Morris, in "Doctors Versus Folks" (Published by Doubleday, Page & Co.), has some very appropriate things to say about medical society affiliation. What he says is so good that we would like to reprint all of it, but space permits only a few quotations. "A doctor who remains away from society meetings fails to identify himself. The society meeting is a court which gives doctors an advantage that was previously accorded only to lawyers. There is where we find the strong man who does not fear attack, and who earnestly wishes to be defeated if he ought to be defeated. We find there occasionally the weak man who does not remain long and who runs away and tries to succeed all alone with a lot of wrong views. It is sometimes said that men go to society meetings for the purpose of advertising themselves. Very well! The audience quickly decides whether such advertising is valuable to the individual or not. . . The physician who presents a five or ten minutes report upon a case of headache in which he has thoroughly worked out all of the features, obtained a result, and collected a suitable fee, will be awarded more credit than is now given to a report upon the radical cure of hernia. The reason for that is because there are more headaches than hernias, and more skill is required for re-

lieving people of their headaches. Doctors lacking headaches will turn to surgery for an income. . . If men who are conscious of a certain personal inferiority have a tendency to remain away from society meetings through fear of comparison with others, they may comfortably attend meetings in the feeling that every one of the best men in the country has the same feeling."

On first reading this book one wonders if the title was given before or after it was written. The subject is really "Doctor Morris" and is well handled—by one who ought to know.

It is an exceptional man who is able to fill a book with himself and his opinions and "put it over." There is more of the personal element in "Doctors Versus Folks" than would be permitted a man of lesser note. A man, even of his professional standing, assumes a questionable privilege in setting up his own standard for determining the moral obliquity in other men. Although in the beginning of his practice, as he modestly admits, he had proved himself a competent ophthalmologist, although he had then shown inventive genius in rhinology and laryngology, although he had used his Yankee mechanical instinct to some purpose in the development of orthopedic surgery, although he had been particularly well trained in genito-urinary work, and although fascinated by the speculative side of neurology and psychiatry, still his ultimate development was in the field of general surgery and his criticisms of these other specialties and specialists are entitled to no more consideration than would be the criticisms of general surgery and surgeons by one of these other specialists.

Kansas men will, no doubt, be highly gratified on finding in this book, "Doctors Versus Folks," a full reproduction of an editorial which appeared in the Topeka Capital last year, and in which it is charged against the doctors in this state that fee-splitting amongst them is the rule

rather than the exception. It is difficult to interpret the motive for the reproduction of this article unless, perhaps, it lies in the following: "Replying to some comments in the New York Times a leading surgeon of the higher class, Dr. Robert T. Morris, discusses the issue—" etc. There is no reference to the article which would indicate another motive.

The eminent authore probably did not know the spirit of retaliation which prompted this attack upon the medical profesison of Kansas. He probably did not know that that paper had for many years been the exponent of every sort of medical quackery, that its pages were largely filled with the advertisements of the worst kind of medical vultures, and that only after the defeat of its owner, a candidate for Governor, in 1912, by the medical profession of the state did the policy of this paper show any improvement. This new attitude of righteousness on the part of the Capital would have been welcomed, and its show of interest in medical ethics, heartily approved by the doctors had they been ignorant of the real motive or less acquainted with the real sentiment of those who were responsible for its utterances. The article reproduced by Dr. Morris was intended as an insult to the medical profession of this state. The Capital pretended to espouse the cause of a much defrauded and outraged people. It fathered, brothered and sistered a bill through the legislature for the protection of the people against this horde of unholy grafters. But it is remarkable that no interest was manifested in this movement by either the people or the profession. The Capital succeeded in putting a stain upon the fair name of the medical profession in retaliation for the political defeat of its owner. One can hardly commend the careless indifference with which this eminent surgeon helps to besmirch the good reputation of a fairly representative body of men in his own profession.

One is not surprised at the author's righteous indignation on the subject of

fee-splitting, but one is bewildered by his fine discrimination between honorable and dishonorable fee-splitting: "He says: "When two doctors compound with one another to divide a fee without the knowledge of a trusting patient, who thus becomes a victim, we have an example of the second step in phylogenetic brigandage, which dates back in race history to the individual robber and to brigandage between feudal barons. . . There is no objection to a division of the fee in cases in which several physicians participate, provided that the patient is fully aware of the entire transaction. That is the crucial point and the pivot upon which the moral side of the matter rotates."

A crime is no less a crime when committed in the light of day. The night robber is, however, less bold and unscrupulous than the daylight robber and his victim may escape with a less heavy toll.

As an illustration of the fine discrimination between righteous and unrighteous fee-splitting, one of the eminent author's above-the-table deals may be related (page 144). He had agreed with a certain physician to do a hernia operation for two hundred and fifty dollars. When the patient was brought to him the physician in charge requested that he be given enough of the fee to pay his expenses in coming to the city. This could not be thought of, but the surgeon informed the patient that the "doctor had not arranged about the fee quite right" and persuaded him to pay one thousand dollars for the operation and two hundred and fifty dollars to the doctor for bringing him in. This was all open and above board—no secret about it. The men of Kansas, who have been so bitterly denounced as fee-splitters, will see in this the particular virtues of *honorable* fee-splitting. The physician got a good deal more than he asked for, the surgeon got seven hundred and fifty dollars more than he had agreed to do the work for, and the patient had the estimable privilege of putting up a thousand dollars more than he anticipated. But, as the author sug-

gests, the pernicious element in fee-splitting lies in the bait offered to the man who hands out the cases. The fish in this case caught a minnow while looking for a worm and one can imagine him still lurking in the vicinity of his find.

In another of the above-the-table deals related by the author the physician did not fare so well. In this case he, the author, was called to operate upon a case of appendicitis in which the physician in charge had made the diagnosis and insisted upon the operation. A successful operation was performed and in due time a settlement was called for. "In view of the fact that the diagnostic insight of one of the physicians had furnished the primary motive which led to action and at a critical moment, it seemed to me better to ask the patient to send me one-half of five thousand dollars, and to inform him that the family physician deserved the other half. The physician was a man of the very highest character who under no circumstances would have accepted a commission had he been working in association with the *kind of surgeon who would have given a commission.*" (Italics ours). The patient did not see it that way. He paid the surgeon his half, but the physician did not get the other half. The author admits that this operation was worth five thousand dollars—as he did it himself he ought to know—and that the physician was entitled to half of it, but in defense of a principle he permitted the patient to pay half what the operation was worth and permitted the physician who had called him into the case to be cheated out of his just compensation. One has a suspicion that in this case the deal failed to go through because of the real integrity of the physician in charge, who rendered his bill and collected what he thought his services were really worth. One questions the moral standard which justifies a charge of five thousand dollars for an operation, in an emergency, which would be done for three hundred dollars under ordinary circumstances.

Pretty much all of us are failures in

this matter of moral discrimination. We justify by circumstances an act of our own which if done by another we would consider a crime. Acts cannot be determined as right or wrong by a fixed rule of demarkation. They are right or wrong according to the relative amounts of benefit or injury they may cause.

—D—

Medical Association of the Southwest.

The tenth annual meeting of the Medical Association of the Southwest will be held at Oklahoma City, Oklahoma, October 12 and 13, with a full day of clinics by the profession of Oklahoma City. Monday, October 11, orations by Dr. J. B. Murphy of Chicago, and Dr. F. M. Pottinger, of Monrovia, California. A splendid program is assured. The Lee-Huckins Hotel is to be headquarters.

—R—

Arrangements have been completed by which one of the regular organizers of the A. M. A. will spend some time in this state in securing new members for the various county organizations. This work of organization will be taken up by districts. It is to be hoped that he will receive the hearty co-operation of every members of the Society.

—R—

The next meeting of the Northeast Kansas Medical Society will be held in Topeka, October 28th. The program for the meeting will appear in the October number of the Journal.

The Corral

By O. P. Davis

"If Thoughts Run Wild, Put Them in Bounds."

SANE VERSUS INSANE—Harry Thaw, at great expense to himself and the state of New York, has finally been pronounced sound of mind and set at liberty. Some years ago, at great financial outlay, he was adjudged insane and his prosecution for murder thus defeated. The doctors at one time thus convinced a jury that he was insane. Other doctors have recently

convinced another jury that he is now sane. And yet it was the same Harry Thaw all the time. It was not claimed that a cure or restoration had been effected. The contention in the last hearing, and it seemed to prevail, was that he was never insane at all.

* * *

I do not care to go into the Thaw case any further than to say that to whatever evidence of insanity there was in the career of that rich man's son, the killing of Stanford White was not, in my humble judgment, contributory. An act, however violent, is not to be considered the act of an insane person if there is behind it a motive or provocation that would prompt others of average sound mentality to do the same thing. And the motive that incited the killing of White has led to homicide times without number in every age of the world's history. Whatever Thaw's disposition or degree of depravity may have been, apart from the killing, that act in itself was certainly no evidence of his insanity. And I think the court and jury justly arrived at that conclusion. Yet there were eminent medical men arrayed on opposite sides of this case all the way through, men of great professional prestige. And these men, with their conflicting opinions, confusing testimony and manifest bias, added much to the traditional public distrust and contempt for expert medical evidence.

* * *

The present-day method of adjudging persons alleged to be insane is a theme ripe for discussion in the medical profession, and one that should be given our serious consideration, to the end that some needed changes be enacted in the legal procedure. It has been the practice to treat an insane person like one accused of crime. If there is any doubt as to his sanity he is supposed to be given the benefit of that doubt, the benefit, according to the popular idea, consisting in turning him loose. The fact is lost sight of that the real benefit, to both patient and community, consists in keeping the suspected per-

son under proper surveillance until a definite knowledge of his true condition may be determined, to the end that any treatment required may be instituted early, and any possible tragedy averted.

A person with symptoms suggestive of tuberculosis is kept under patient observation, and every means employed to discover the true cause and extent of his malady. He is perhaps kept in bed, and well known precautions used during this period of investigation. And all this diligence is not abated until the patient's freedom from the disease has been assuredly established. Why should not those 'who display' evidence of mental disease, though in incipient form, be treated in somewhat similar fashion and for similar purpose?

* * *

On the contrary, under the present system, such a person is treated like a criminal, and often is subjected to gross indignities, sufficient in themselves to aggravate whatever susceptibilities may have been manifest, and thus to confuse the morbid state with what might be considered a normal condition of excitement. Instead of the person being treated as a patient and subjected to diagnostic methods extending over an adequate period of time, he is apprehended by an officer, a complain is served on him and he is taken or commanded to appear for trial or investigation before a court of law. If he manifests any resistance, he is put in jail.

* * *

At the hearing the accused is given the option of trial before a jury or before a commission of two physicians appointed by the court. The law seems to give equal weight to the diagnostic acumen of a lay jury and that of a medical commission, and as matters go, I think the jury is perhaps fully as well qualified, as a rule, to pass on these cases as is the average medical commission. For, humiliating as it may be, most physicians frankly admit that they know next to nothing about psychiatry. And I have observed that the busy physicians who have been called, extemporaneously, to sit in these cases

are usually impatient to get away to other pressing engagements. Most likely they have never seen the patient before. They hear the vidence more or less hurriedly, fill out the blank form with more or less inane answers, and thus conclude a most superficial investigation. A lawyer for the patient, appointed by the court, and another lawyer who represents the state, sit by and see that the patient gets on the one hand his "rights" and on the other his "deserts."

* * *

Let me pause just long enough to pay my compliments to the blank form which is prescribed by the state and which has been spread upon the statutes as a perpetual guide for our use in the analysis of a case of this kind before the court. It was evidently the extemporaneous product of the brain of some legislative hill-billy in the crude pioneer days. At any rate, for vain repetition and reiteration, meaningless and irrelevant phraseology and egregious omissions it would win a prize in any exhibit of puerile or freak composition. And yet it constitutes a monumental statute, one that no legislature has ever ventured to improve or repeal, perhaps because no member of succeeding legislative bodies has felt competent to undertake the task.

* * *

It has been quite unnecessary for me thus to recapitulate the familiar procedure that must be taken preliminary to the commitment of the insane. But I have felt that its absurdity would be the more apparent by the recital. The idea of bringing an insane person, sick of mind, excitable, nervous, apprehensive, terrified, into a court, perhaps out of a jail; of haling him before ignorant and curious men; before men ignorant of nothing so densely as of things medical; or perhaps before other men, who, though physicians, are yet confessedly ignorant in the ways of that mystery of mysteries, the human mind, of whose nature and disorders even the best alienists know not any too much—the idea, I say, of putting the patient

through this kind of ordeal and of letting these men, whether gentlemen of the jury or of the commission, diagnose the case, seems to me the very height of the ridiculous, if it were not so lamentable.

* * *

Of course, there are many manifestations of mental disease that are so obvious that there is little chance of injustice being done. A person who rends his clothing, shrieks and raves and climbs the wall is readily pronounced insane if it can be decided that he is not drunk. And by the lay mind some such carryings-on as these are apt to be considered essential to a diagnosis of insanity. The ordinary unmedical person can easily recognize self-evident types of disease, mental or physical. But it is not with such that I am concerned in this criticism. It is of the incipient, the atypical, the borderland cases that I am thinking. These, when recognized early, often may be benefitted and mental deterioration arrested; or if not that, some terrible tragedy averted.

* * *

A person with a mental derangement, I insist, should be regarded and treated as a sick person,—as one seriously ill. It is not a devil that possesses him. There is a real pathological condition at the bottom of the trouble. He should be cared for in a hospital. If his case is urgent, if restraint is required, he should not be put in jail, but sent instead to a place intended for people who are ill, until regular disposition of him can be made. Every general hospital should be prepared and expected to take temporary care of these unfortunate people. In a doubtful case, let the patient be kept under observation till a definite diagnosis can be made. For cases requiring protracted observation, the state should maintain a suitable psychopathic hospital, unstigmatized by connection with the hospitals for the insane.

* * *

The superficial methods of observation employed under our present system of procedure should be discountenanced. The

determination of the mental status of a person should never be given over to a common jury; nor even to a medical commission, unless that commission is prepared to give the question the amount of time and special skill that it deserves. While, as already remarked, the result of the inquiry is, in many cases, obvious from the beginning, there are yet many others where a most skillful and protracted investigation will be required to disclose a species of mental alienation that may be hopeful of restoration if apprehended early, but hopeless and dangerous in the extreme if overlooked or disregarded.

* * *

There is nothing in the universe so wonderful or so mysterious as the human mind. This highest evolutionary product is also the most recent development in point of time. And it is a well known law that organs and functions of latest development are the most unstable ones. Of the various attributes of the mind, those most recently attained, and consequently the most unstable of all, are those having to do with prudential and moral self-control. The development of these mental qualities is much more pronounced in some people than in others, and the poise or equilibrium correspondingly less delicate and less easily disturbed. It is not strange that, under the terrible stress and strain of modern life and under the influence of faulty mental environment, so delicate a structure often totters and falls. The treatment of these bits of human flotsam is beyond the skill of the ordinary practitioner, and beyond the comprehension of the average layman. It is a task only to be undertaken by the most highly specialized medical skill and in the most thoroughly equipped institutions, of which I know Kansas has at least one.

* * *

In the way of prevention of mental disease, the family physician and the public at large may do much. Perhaps too much stress has been laid on heredity in the causation of insanity, and not enough on

other factors. I think environment, even more than heredity, is at the root of this apparently increasing malady. Yet it is true that heredity produces an environment which tends to perpetuate that heredity.

We need more attention paid to mental hygiene in our schools, along with the proper attention that is already being given to physical hygiene and athletic training. Children should be taught self-control, not only physical but intellectual, emotional and moral. Their instinctive impulses should be trained to express themselves only along well directed channels. The hyper-neurotic child should be given special attention in an environment specially suited to this numerous class. If this seems too great a burden to assume, let the load be lightened by dispensing with some of the frills with which our schools are now bedecked. Some way can most surely be found by a public aroused to the value and need of such measures, and sensitized to the horrors of mental invalidism.

* * *

OFF TO SCHOOL. The colleges of the country are gathering this month the youthful flower of the land. Boys and girls are filling the trains that traverse the state, on their way to Lawrence or Baldwin or Topeka, or perhaps to more distant and more pretentious educational centers.

It is a sight to make us young again and to inspire us, as we stand by and observe. The growing love for learning and for the broader culture to be had in the colleges and universities is one of the most hopeful signs of the times. The democracy of our schools and their availability to those of humble means make us proud and stimulate our patriotism. How different from what used to obtain, and from what still obtains in other lands!

Some tender reminiscences are called up by this spectacle of the boys and girls leaving home for school. There is at least one who can recall with vivid memory his weaning from home on a similar oc-

casional years ago. At the railway station in a little country town, in the twilight of a September evening, a group of three is waiting for the belated train that is to bear an impatient, yet reluctant, lad away from home and mother for the first time. Weeks of anticipation, and perhaps of apprehension, have focused on this hour, when an only child, of tender years, is to be sent far away to school.

The little trunk, strapped and roped, stands on end on the platform, eloquent of weeks of mother's loving providence. Father paces the platform, but mother sits close by her boy, with an arm about his shoulders, looking now at him with a tender gaze, and now far away into immeasurable distance, as though she were trying to follow him with mental vision through the coming years. A word or two is all that passes for many moments at a time, but there is a language between kindred souls that does not need the utterance of lip or tongue.

A distant sound finally reaches the ear. The moment for parting has arrived; for the breaking of home ties; for the opening of a new epoch to mother's boy. She folds him in a lingering embrace, she pours her soul from her eyes into his, presses a never-forgotten kiss upon his lips, and then lets the hungry reptile of the rails swallow him up. Mother's boy has gone from her forever. Thereafter, though the months and years find him briefly returning, he is no longer mother's boy. He has taken on some of the so-called wisdom of worldly ways. He is weaned from the sweet, childish companionship with mother.

—————R—————

Iodine applied to a chigger bite usually stops the itching and prevents further annoyance. One application is usually sufficient.

—————R—————

Some cases of sciatica are relieved by the administration of castor oil in tablespoonful doses until the bowels are thoroughly moved.

BOOKS.**Alveolodental Pyorrhea.**

By Charles C. Bass, M. D., Professor of Experimental Medicine and Foster M. Johns, M. D., Instructor in the Laboratories of Clinical Medicine at the Tulane University Medical College, New Orleans, La. Octavo volume of 167 pages, with 42 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth \$2.50 net.

The author describes alveolodental pyorrhea as "a destructive disease of the supporting structures of the teeth, the specific cause of which is *Endamoeba buccalis*."

At the time of the final identification of the specific cause of this disease a specific remedy was already known. Emetin hydrochlorid is the specific and is used hypodermatically in one-half grain doses. The injections are made in the arm and are given every day for five or six days.

Of late years this disease has become of considerable importance to the general practitioner as a probable source of infection in septicemia, endocarditis and rheumatism. Although the proof of this relationship is not positive there is ground for strong suspicion. The author says: "Most pyorrhea pockets contain one or more species of pathogenic bacteria, staphylococci, streptococci, pneumococci, diplococci, etc. The endamoeba are moving about among the bacteria and carrying them into the granulation tissue among the granulations. They plant and re-plant the bacteria where they are likely to gain entrance to the blood stream."

The etiology, morbid process, symptomatology, diagnosis and treatment are thoroughly covered by the author. This is certainly one of the subjects upon which the general practitioner should be better posted.

The Treatment of Fractures.

The New (8th) Edition, Enlarged.

With notes upon a few common dislocations. By Charles L. Scudder, M. D., Surgeon to the Massachusetts General Hospital; Associate in Surgery at the Harvard Medical School. Eighth edition, revised and enlarged. Octavo volume of 734 pages, with 1,057 original illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Polished Buckram, \$6.00 net;

half morocco, \$750 net.

A good many new illustrations appear in this new edition of Scudder's and considerable new material has been added upon fractures of the jaw, the acetabulum, the greater tuberosity of the humerus, and separation of the lower epiphysis of the femur. Only those suggestions as to treatment that have been tried out and found to be of practical value have been included. The author says: "It appears to me that the greatest recent advance in the treatment of fractures of bone is the application of the principle of the autogenous bone-graft in cases of delayed union and non-union."

It is only necessary to say that this is a new and revised edition—no further comment is required. Everyone knows Scudder's Treatment of Fractures just like he knows Gray's Anatomy or Webster's Dictionary.

Diarrheal, Inflammatory, Obstructive, and Parasitic Diseases of the Gastro-Intestinal Tract.

By Samuel G. Gant, M. D., LL. D., Professor of Diseases of the Colon, Sigmoid Flexure, Rectum, and Anus at the New York Post-Graduate Medical School and Hospital. Octavo of 604 pages, 181 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$6.00 net; half morocco, \$7.50 net.

A recent work by Dr. Gant on Constipation and Intestinal Obstruction was well received and highly appreciated. No doubt this companion piece on diarrhoeas will be as favorably received.

It is a much broader subject than a casual observer would think and the author has found material enough, upon the various causes and forms of diarrhoea, to fill this book of nearly six hundred pages.

It is interesting to note that the author has been able to classify seventeen forms of diarrhoea besides the symptomatic diarrhoeas occurring in connection with various general conditions, which he has classified under six heads.

He believes that in many cases of chronic diarrhoea, where medicines and diets are of little or no avail, the through-and-through flushing of the bowel is of great importance. He believes that in

cases where the solutions cannot be made to reach all parts of the large bowel when introduced from below one of the operations for the purpose of through-and-through colonic flushing should be done. He describes in detail his methods in these operations and his apparatus for flushing.

PRACTICAL MEDICINE SERIES.

Volume V of the Practical Medicine Series covers the subjects of Pediatrics and Orthopedic Surgery. The section on Pediatrics is edited by Isaac A. Abt, M. D., Professor of Pediatrics, Northwestern University Medical School and Attending Physician to Michael Reese Hospital. The section on Orthopedic Surgery is edited by John Ridlon, A. M., M. D., Professor of Orthopedic Surgery, Northwestern University Medical School, with the collaboration of Charles A. Parker, M. D.

This volume is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume being complete on the subject of which it treats for the year prior to its publication.

Price of this volume \$1.35. Price of the series of ten volumes, \$10.00. The Year Book Publishers, 327 So LaSalle Street, Chicago.

MISCELLANEOUS.

Frank S. Betz Company Expand.

Considerable interest has been aroused in professional and trade circles by the rumor of changes in the personnel of the Frank S. Betz Co., of Hammond, Indiana. These rumors have been definitely confirmed by members of the company. Mr. Frank S. Betz, who hitherto has been virtually the sole head of this large business, has felt the need of active assistance in the management of the affairs of the concern, and especially to carry out plans of extension along the many lines in which the company is interested. As a result, a coterie of business men, including many high in the financial and business world, have purchased a large interest in the

company, and extensive plans are being formulated for the general extension of the business in every branch. Mr. Betz naturally remains with the company as president and chairman of the board of directors. The changes will not affect the policy of the concern as to its methods of manufacturing and selling goods, but the infusion of new blood will mean greater activities and further extensions in every way.

The growth of the Frank S. Betz Co. is another illustration of the remarkable success that can be achieved by a man of untiring energy and devotion to his work. He has built up this large business practically unaided, without the assistance of outside capital or borrowed money. It really represents the earnings on his original investment.

The new members of the firm are fortunate to align themselves with an established business house that has never carried a dollar of indebtedness except current bills for merchandise. With such a reputation for financial integrity, the plans of the new management seem assured of success.

R

Artificial Preservatives Not Necessary.

Fruits and vegetables can be kept indefinitely if they are sterilized by heat and properly sealed, and there is no excuse, in the opinion of the experts of the department, for running any risk by using preserving powders, which may be injurious to health. The use of such powders in addition to the possible injury to health encourages uncleanly or careless work in canning. Reliance is placed in the efficacy of the preserving compound instead of upon cleanliness and heat.

The department has issued bulletins that give specific directions for the preserving and canning of fruits and vegetables without the use of preserving powders or canning compounds. These bulletins may be obtained without cost from the department of agriculture. Application should be made for Farmers' Bulletin No. 203 on Canned Fruit, Preserves and Jel-

lies, and No. 521 on Canning Tomatoes at Home and in Club Work. Also Forms N. R. 22, N. R. 23, N. R. 24, N. R. 34 and N. R. 37 of the Office of Extension Work, North and West, State Relations Service.

—R—

International Conference on Race Betterment.

The second international conference on Race Betterment, held at San Francisco, California, August 4-8, was attended by a large number of men and women of scientific achievement. The conference discussed race decadence, the possibilities of race improvement, and the agencies of race betterment.

Luther Burbank, the plant wizard, discussed "Evolution and Variation with the Fundamental Significance of Sex." Mr. Burband said: "Abundant, well balanced nourishment and thorough culture of plants or animals will always produce good results in holding any species or variety up to its best hereditary possibilities, beyond which it cannot carry them, and lacking which, maximum development can never be realized. But a sharp line must always be drawn between the transient results, temporarily attained through favorable environment and the permanent results of selection of the best individuals for continuing the race. Only by constant selection of the best can any race ever be improved."

Paul B. Popenoe, editor of the American Journal of Heredity, in discussing "The Natural Selection of Man" declared: "There are only two ways to improve the germinal character of the race, to better it in a fundamental and enduring manner. One is to kill off the weaklings born in each generation. That is nature's way, the old method of natural selection which we are all agreed must be supplanted. When we abandon that, we have but one conceivable alternative, and that is to adopt some means by which fewer weaklings will be born in each generation. The only hope for permanent race betterment under social control is to substitute a selective birth-rate for nature's death-

rate. That means—eugenics."

Dr. J. H. Kellog, superintendent of the Battle Creek sanitarium, proposed that the conference institute a eugenics register which would undertake to register two classes of persons: "First, those who, on examination in relation to personal characteristics and family pedigree, are found to measure up to eugenic standards. Second, the children born of parents whose pedigree and physical characteristics conform to the required standards. Such a registry would be the beginning of a new and glorified human race which sometime, far down in the future will have so mastered the forces of nature that disease and degeneracy will have been eliminated. Hospitals and prisons will be no longer needed, and the golden age will have been restored as the crowning result of human achievement and obedience to biologic law."

Among the other speakers were Dr. David Starr Jordan of the Leland Stanford University; Dr. Ernest B. Hoag of the Los Angeles Juvenile Court; Edgar L. Hewett, director of the United States Bureau of Ethnology; Prof. Irving Fisher of Yale University, and many others of equal prominence in sociological and scientific circles.

The conference was concluded with a Morality Masque, in which two hundred students of the University of California took part. This masque was a dramatic arraignment of disease and war.

—R—

Injection Treatment of Hemorrhoids.

F. S. Edwards relates his procedure in injecting hemorrhoids.

After a warm boracic enema, the piles are extruded at stool. The patient is then placed on a couch in the knee-elbow position, and the piles mopped over with a little warm antiseptic lotion. A hyperdermic syringe is filled with the following solution:

R Acid Carbolgr. xxiv
Glycerini5i
Aquam ad5ii

The needle, of good lumen, is then

passed into the center of each prolapsed hemorrhoid in turn, from 3 to 6 drops being injected according to the size of the pile. This is usually quite painless. Swelling occurs at once, so the sooner the piles are returned the better. The patient is then allowed to go home, with a caution to return the piles at once should any prolapse occur, otherwise strangulation and sloughing might ensue. A second injection is sometimes necessary after the lapse of a month or two, but in many cases recurrence, if it takes place at all, is postponed for a year.—Practitioner, No. 3, 1915.)

R

School Toilets Not Responsible.

Complaints are not infrequently received that girls from nice homes attending public schools, and of grammar school age, have been infected through contact with the common water closet seats at the schools. Several instances of gonorrheal vaginitis were recently reported by a Brooklyn physician who felt that all sources of infection had been excluded except the public school.

Bacteriological tests were accordingly made by the Bureau of Laboratories in the girls' toilet of two public schools in Brooklyn. In none of these were gonococci found either by smears or cultures.

The method employed in making these examinations was as follows:

A sterile swab was rubbed over the whole inner edge and front surface of seat; smears were made from the dry swab and then the swabs were placed in enriched media of ascitic broth and blood broth. Immediately upon reaching the laboratory both the dry swabs and the enriched media were placed upon fresh glucose-ascitic-agar plates, and upon blood streaked veal-agar plates. The plates and enriched media cultures were examined at end of 24 and 48 hours at 37 degrees C.

R

A strong alkaline urine may be rendered acid by the administration of ammonium benzoate in doses of from 15 to 20 grains three time a day.

THERAPEUTIC NOTES

NEW REMEDIES.

During August the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Armour and Co.: Pineal Gland Desiccated.

Hoffmann-La Roche Chemical Works: Scopolamine Stable Roche, Larosan, Roche, Pantopon (Pantopium hydrochloride).

A. Klipstein and Co.: Coagulen, Ciba.

R

The gonococcus seems to be very particular about the soil and climate in which it propagates. It is a very difficult organism to grow on most culture media. If exposed to the air for a few hours it dies. It is cultivated with difficulty, even in the most favorable soil, after having been transported for any great distance. It will not thrive on wood or in clothing.

The nutritive value of milk may be much improved by the addition of Mead's Dextri-Maltose. Two tablespoonfuls to twenty ounces of the mixture is given as the dose. We have found a much smaller quantity to give very excellent results. Besides adding to the nutritive value of the milk it seem to be sufficiently laxative to keep the bowels in good condition.

Kaufman (N. Y. Med. Jour.) says that scarlet red has given very gratifying results in the treatment of laryngeal tuberculosis. Applications of a ten per cent solution in oil causes a marked lessening of the pain, and the ulcerations show a tendency to heal. Furthermore, it is non-irritating and may be applied to the larynx without causing the patient discomfort by the use of the laryngeal mirror.

It may be well for ophthalmologists and rhinologists to bear in mind that holocain, being prepared from phenacetin, is not under the restrictions of the narcotic law. It is more rapid in its action than cocain and is free from some of the bad effects of the latter drug.

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The Factor of Age in the Incidence and Death of Typhoid Fever.

WILLIAM J. V. DEACON, State Registrar,
Topeka.

Read before the Kansas Medical Society, Kansas City, May, 1915

Among the scores of ills that affect mankind, there is probably no disease which presents as many interesting phases for statistical study as Typhoid Fever.

Being a "Reportable Disease" in most states, there is a rich fund of data available, unsurpassed in any other disease, unless it be tuberculosis.

Being a "preventable disease" renders all statistics of peculiar value as pointing to the major and individual foci and providing the sanitarian with the fundamental basis from which to carry on his campaign for correction of the "sanitary short circuit," responsible for the propagation and spread of the "bacillus typhosus."

Being a "community disgrace," published statistical information arouses the public to the necessity of vigorous action which will support and stimulate the health authorities in the performance of their duties and secure sufficient official aid and appropriations to make possible effective executive action.

Because of the fact that most writers on the subject of typhoid fever insist that it is largely a disease of early adult life and lay much stress on the relation of age to incidence, a careful study was made of the last one thousand deaths reported in Kansas and the results in re-

lation to sex and age are submitted herewith.

TABLE I.

Showing distribution of 1,000 deaths from typhoid fever in Kansas by age and sex:

Age Under	Total		Males		Females	
	Deaths	Ptc.	Deaths	Ptc.	Deaths	Ptc.
5 Years	64	6.4	30	3.0	34	3.4
5 to 9	58	5.8	32	3.2	26	2.6
10 to 14	90	9.0	38	3.8	52	5.2
15 to 19	125	12.5	54	5.4	71	7.1
20 to 24	174	17.4	119	11.9	55	5.5
25 to 29	114	11.4	78	7.8	36	3.6
30 to 34	96	9.6	58	5.8	38	3.8
35 to 39	50	5.0	32	3.2	18	1.8
40 to 44	54	5.4	36	3.6	18	1.8
45 to 49	29	2.9	18	1.8	11	1.1
50 to 54	35	3.5	20	2.0	15	1.5
55 to 59	23	2.3	14	1.4	9	.9
60 to 64	31	3.1	19	1.9	12	1.2
65 to 69	20	2.0	15	1.5	5	.5
70 to 74	13	1.3	5	.5	8	.8
75 and over	13	1.3	5	.5	8	.8
Total	1,000	100.0	579	57.9	421	42.1

It will be observed in Table I that about 58 per cent of the deaths were male and 42 per cent female. This is but slightly different from the sex distribution as shown in the 11,290 deaths from this disease reported in the registration area for 1913, where the difference was 59 per cent male to 41 per cent female.

It is probable that there is no sharp distinction to be drawn from the above as to the relative resistance of the sexes. Unfortunately case reports are so incomplete that the attempt to determine a comparative mortality rate is unsatisfactory.

The fact that the male is, as a rule, more of a migratory sort of animal and

is more likely to be placed in the path of infection from water and milk supplies, probably accounts, in a large measure, for this difference.

In Table No. I, the mode, that is the age at which the greatest number died, is at 23 years and in the group 20 to 24, but this mode is at considerable variance in relation to the sexes; the mode for males is at 27 years, but in the group 20 to 24; and for females at 17 years in the group 15 to 19.

The median, that is the point at which one-half of the number died, is at 23.6 years; for males 25.3 and for females 21.9 years.

TABLE II

Distribution by age of 11,290 deaths from typhoid fever, United States registration area, 1913:

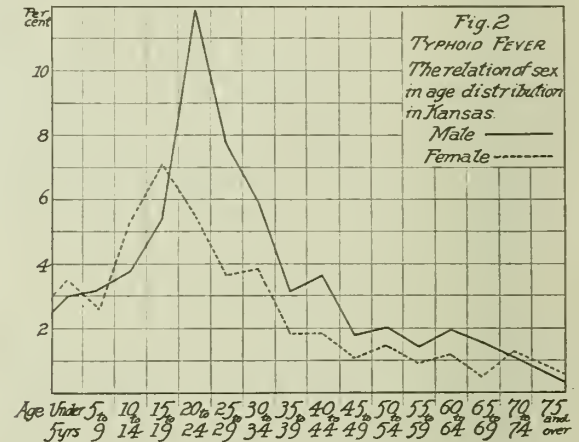
Age	Total		Males		Females	
	Deaths	Ptc.	Deaths	Ptc.	Deaths	Ptc.
Under 5 Years	627	5.5	316	2.8	311	2.7
5 to 9	759	6.7	367	3.3	392	3.4
10 to 14	825	7.3	360	3.2	465	4.1
15 to 19	1,544	13.7	822	7.3	722	6.4
20 to 24	1,817	16.1	1,163	10.3	654	5.8
25 to 29	1,366	12.1	907	8.0	459	4.1
30 to 34	938	8.3	609	5.4	329	2.9
35 to 39	803	7.1	509	4.5	294	2.6
40 to 44	672	6.0	424	3.8	248	2.2
45 to 49	558	4.9	367	3.2	191	1.7
50 to 54	418	3.7	256	2.3	162	1.4
55 to 59	336	3.0	206	1.8	130	1.2
60 to 64	232	2.1	146	1.3	86	.8
65 to 69	197	1.7	108	.9	89	.8
70 to 74	101	.9	63	.6	38	.3
75 and over	97	.9	42	.4	55	.5
Total	11,290	100.0	6,665	59.1	4,625	40.9

This wide variation is not peculiar to Kansas. In Table No. II will be found the distribution by age and sex for the registration area of the United States for 1913 and it will be observed that the mode lies in the same group, namely, 20 to 24 years.

In the comparison of the age groups, however, it will be noted that in both of the tables there is a wide variation in the ages of deaths for males and females. In the registration area, the group of 15 to 19 years is the highest for females, while the next group, 20 to 24 years, is the mode for males.

It is our young and vigorous adult life that is paying for our sanitary

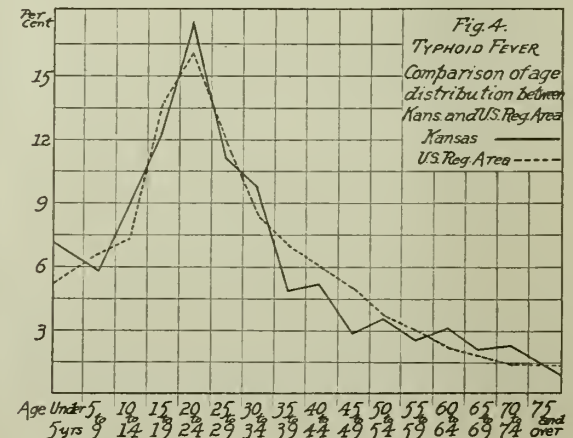
crimes; in this case 50 per cent of the deaths occurring between the ages of 15 and 34 years. However, here again we find a sharp distinction between the sexes; in the male 52.5 per cent occur-



ring between these ages and in the female but 46.7 per cent.

Many authorities assert that children rarely have typhoid fever, but we find by reference to Table No. II that 627 deaths, or 5.6 per cent were in children under 5 years of age.

The reason that our modern practice finds so much more typhoid fever among children is because with our modern laboratory methods of positive diagnosis it is now possible to make diagnoses of the disease which heretofore were unrecognized. It is entirely probable, as we reach more careful methods, that many deaths now recorded as diarrhoea and enteritis in children under two years will be found to be typhoid fever.



The age distribution between Kansas and the registration area is quite similar as shown by Fig. IV; the fluctuations in the Kansas curve above the age of 35 being smoothed in the registration area curve, but this does not appear significant, as the larger number of samples in any study will always tend to smooth the curve.

The most significant single item herein appears in the much earlier age of death of females than of males; the most plausible explanation seems to lie in the relation of the period of high incidence and least resistance to the age of maturity, or the age of puberty.

CASES.

At the time of beginning this study, there were at hand 1,045 reports of cases in Kansas containing sufficient information for the purpose, and through the courtesy of Dr. J. W. Trask, assistant surgeon general, United States Public Health Service, data was secured covering about 15,000 additional cases. The following cases are therefore used in this paper:

Kansas	1,045
Pennsylvania	10,316
Minnesota	3,237
Michigan	1,706

Total.....16,304

This eliminates those of unknown ages or other unsatisfactory or incomplete items.

The age distribution of these is shown in Table No. III.

TABLE III

Showing age distribution of 16,304 cases of typhoid fever:

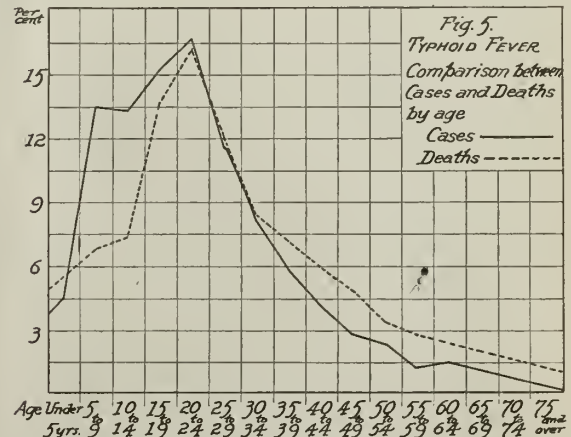
Age	Number of Cases	Percent
Under 5 years.....	735	4.5
5 to 9.....	2,207	13.5
10 to 14.....	2,164	13.3
15 to 19.....	2,498	15.3
20 to 24.....	2,722	16.7
25 to 29.....	1,844	11.3
30 to 34.....	1,263	7.8
35 to 39.....	942	5.8
40 to 44.....	680	4.2
45 to 49.....	446	2.7
50 to 54.....	352	2.2
54 to 59.....	201	1.2
60 and over.....	250	1.5

It is most striking to note the wide variation in the curves showing the comparison between the deaths and cases by age as shown in Table No. IV and illustrated by Fig. 5. It will be observed

TABLE IV

Comparison of age in cases and deaths from typhoid fever by percentage:

Age	Percent Cases	Percent Deaths
Under 5 years.....	4.5	5.5
5 to 9.....	13.5	6.7
10 to 14.....	13.3	7.3
15 to 19.....	15.3	13.7
20 to 24.....	16.7	16.1
25 to 29.....	11.3	12.1
30 to 34.....	7.8	8.3
35 to 39.....	5.8	7.1
40 to 44.....	4.2	6.0
45 to 49.....	2.7	4.9
50 to 54.....	2.2	3.7
55 to 59.....	1.2	3.0
60 and over.....	1.5	5.6

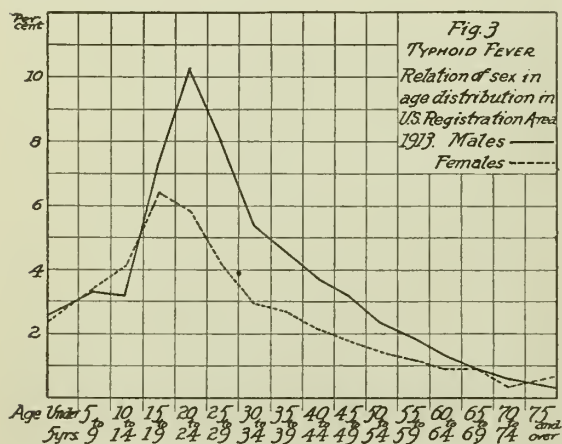


that under the age of 25 in each age group, except that of under 5 years, there is a much larger percentage of cases than of deaths, while above that age the reverse is true. In the age groups between 5 and 25 years occurred 58.8 per cent of the cases with but 43.8 per cent of the deaths occurring in this age grouping.

We appear safe in the conclusion, therefore, that this group represents the age of highest resistance and the point of lowest mortality rate. It is by no means certain, however, that the variation from the rule, disclosed in the group under 5 years, is to be relied upon as the frequent failure of diagnosis in young children will probably account in a large measure for this deficiency.

Above the age of 25 years, there is a marked and steady increase in the proportion of deaths, showing that the impairments of the system from the various causes of our social and industrial life tend to a sharply reduced resistance and consequently increased mortality rate.

In any prognosis of this disease, the age of patient must be considered an important factor, as well as the habits of life preceeding the attack. Literature, however, does not seem to lay much stress on the factor of personal resistance, but there can be no doubt that the virulence of the attack depends in a large measure on the directness of the infection.



There is a wide divergence of opinion as to the number of cases of typhoid fever that eventually become carriers, but the number is sufficiently large to warrant insistence on the continued observation of recovered cases until laboratory examination indicates that the case is not a menace to society.

It is not unreasonable to suppose that the sharp decrease of the number of cases after middle life, is due in a large measure to the fact that most people have had the disease prior to that time, although possibly unrecognized, and thereby established immunity.

The effect of typhoid fever upon our general death rates, due to other diseases, is a most important element. The following quotation from Dr. Louis I.

Dublin "Typhoid Fever and Its Sequelae" is of absorbing interest in this regard:

"Our effort was directed to a comparison of the actual and expected mortality among the 1,428 survivors. Our method was as follows: The 1,428 cases were distributed by sex and color and by ten-year periods. A separate schedule was prepared for each sex and color. The mortality rates of the company (Metropolitan Life Insurance Company) for each individual age, sex and color class was employed as a standard. We assumed that the mortality actually experienced in 1911 by the company in the industrial department should serve as the measure of the expected deaths for the corresponding group of these persons who had recovered from typhoid fever in 1911 for the first year after recovery. For the second year after recovery, we employed similar mortality figures for the year 1912 as a standard and for the third year we employed the figures for 1913. In other words, the mortality table used was not an arbitrary measure, but exhibited the death rates which persons of the same sex, color and age among our industrial policy holders actually experienced. By throwing these rates into the number of years of life of each group in successive years since recovery, we obtained the number of expected deaths for each age period.

In this way we found that in the series of 1,428 persons the expected number of deaths was equal to 26.45. As a matter of fact, our record showed 54 actual deaths. The ratio of actual to expected deaths was, therefore, for our entire series, 204 per cent. In other words, more than twice the mortality expected was realized. You will note that the total number of years of life was nearly 3,850 years.

A number of persons dropped out, either by death or lapsing policies during the first, second or third year after recovery. Each such exit from our se-

ries involved an adjustment in the number of years of life exposed to risk, by taking the proportionate part of a year from the date of recovery to the date of exit. In this way, every day of experience was used. Fortunately, the fullness of the company's record made this much desired step possible. It would be difficult in many other services to keep such complete control of the whereabouts of the individuals composing a large series. Our conclusion from our own series is, therefore, that during the first three years after recovery from typhoid fever, the mortality is twice the normal.

On the basis of the estimated population of Continental United States in 1914, we have calculated that each year a minimum of close to 8,000 deaths occur which can be attributed annually to the impairments which follow typhoid fever. In this estimate, we have assumed a minimal death-rate from typhoid fever of 20 per 100,000. We have also assumed the number of cases to be ten times as great as the number of deaths in accordance with the usual practice. The number of recoveries, therefore, is 90 per cent of the cases. For each of the three years following, we have assumed an expected death-rate for the entire country to be at least 15 per 1,000 from all causes. A calculation of the additional deaths due to sequelae of typhoid fever gives us a total of 7,781. This is the price that is paid annually over and above the registered direct loss from typhoid fever according to the results of our study. It is not only the 20,000 immediate deaths that we have to consider, but the additional 8,000 who, although recovered, cannot survive the strain which modern industrial life makes necessary and who either, because of tubercular or cardiac lesions, die untimely deaths within the first or the second year after recovery."

The Correlation of Clinical and Serological Findings in Paresis and Cerebro-spinal Syphilis.

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and

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Read before the Kansas Medical Society, Kansas
City, May, 1915
(From Warren State Hospital Records.)

Considerable interest has of late been attached to the value of the Wassermann reaction in the differential diagnosis of general paralysis of the insane and cerebrospinal syphilis, and there appears to still be some divergence of opinion. In 1909 Ernest Jones (1) summed up the literature relative to general paralysis to date by saying: "A positive reaction (Wassermann) in the cerebrospinal fluid is strongly indicative of general paralysis, a negative reaction less strongly but unquestionably indicative of its absence; a positive reaction in the blood serum of a suspected case of general paralysis is of some value in support of the diagnosis, a negative reaction there is of much greater value in excluding such a diagnosis." Although many report one hundred percent positive findings in both blood and fluid, the above general statement is today probably more acceptable to the majority of workers than any more rigorous insistence upon constantly positive results. Nonne, in his book, states: "Positive W. R. in the blood means no more than that the person has once been in contact with syphilis (hereditary or acquired), or that somewhere in the body a specific lesion still exists, but it does not mean necessarily that the disease in question must be luetic." And relative to the spinal fluid, "In the large majority of cases of general paralysis the W. R. is usually positive on using only 0.2 c.c. of fluid, but in some few cases, and in most cases of cerebrospinal syphilis and of tabes, the W. R. is positive only on using larger quantities of cerebrospinal fluid." As typical findings he gives the following:

GENERAL PARALYSIS.

Blood positive in one hundre per cent.

Fluid positive in ninety per cent.

CEREBROSPINAL SYPHILIS.

Blood positive in seventy to eighty per cent.

Fluid positive in twenty to one hundred per cent.

In these instances the smaller figures are for technique in which smaller amounts of the serum or fluid have been employed and the larger for that in which more is used. Several American writers, notably Kaplan, have insisted on the value of a negative W. R. in the cerebrospinal fluid in the differential diagnosis. He makes the following statement (2) which perhaps represents the extreme viewpoint. "It is possible to differentiate serologically between paresis and cerebrospinal syphilis," and tabulates the difference as follows:

GENERAL PARALYSIS.

Blood W. R. positive (rarely negative)

Fluid W. R. positive (rarely negative)

CEREBROSPINAL SYPHILIS.

Blood W. R. positive or negative.

Fluid W. R. more often negative.

While examining the opinions given at staff meetings at the Warren State Hospital on 697 routine admissions, it was found that 87 (12.5 per cent) were considered to be syphilitic diseases. Of these 69 (9.9 per cent) were, in the opinion of the majority, unquestionable cases of general paralysis and 5 (0.7 per cent) were cerebrospinal syphilis. Concerning the remaining 13 cases it was determined that eight of the 69 paretics had had negative Wassermann reactions upon the blood, this being 11.6 per cent of all those suffering from this disease. Three, or 60 per cent of the cerebrospinal syphilitics also failed to show positive reaction on the blood. In all these cases the W. R. on the spinal fluid was positive. Since the value of such observations as these depends almost entirely upon the accuracy of the Wassermann technique it may be stated

in passing that all reactions were made according to the particular detail advised by Weston (3) and were done throughout the entire series by one particular observer, thus obviating any difference of personality in estimation of the results. The quantities of all reagents used were one-half those ordinarily used in the W. R. tests. Controls were carried for each reagent. All the reactions mentioned as positive were. . . Cell counts were made by the Fuchs-Rosenthal method. Five drops from each pipette were counted. Globulin test made by the method of Noguchi.

It seems worth while to present somewhat in detail a few cases in which the laboratory findings are of most interest.

1. Cases diagnosed paresis in which the blood W. R. was negative:

Case No. 1. The one specimen of the blood taken was negative to the Wassermann. Of eight spinal fluid examinations the Wassermann reaction was seven times positive and once negative. Globulin positive once, negative seven times and the cells varied from thirteen to none. Death occurred two years and eighteen months after the onset. At the post-mortem examination the diagnosis of paresis was confirmed.

Case No. 2. One specimen of the blood and fluid was taken. Wassermann reactions negative in the blood, positive in the fluid. Globulin positive and cell forty per cubic millimeter. Two months after admission death occurred and the autopsy confirmed diagnosis of paresis.

Case No. 3. Two specimens of blood were negative to the Wassermann test but even after .45 gm. dose of Neo-Salvarsan, with Swift-Ellis treatment seven reactions taken over a period of two years were positive. Eleven specimens of the fluid were all positive to the Wassermann; eight were positive and three negative to the Globulin test and the cells varied from seventy to none. Death occurred two and a half years after admission and the autopsy confirmed diagnosis of paresis.

Case No. 4. Wassermann reaction on the blood negative, on spinal fluid positive, Globulin positive and cells four per cubic millimeter. Death occurred three months after admission and permission for autopsy was refused. However, our diagnosis of general paralysis of the insane is corroborated by similar diagnosis made at the Sheppard and Enoch Pratt Hospital just previous to our observation.

Case No. 5. Two specimens of blood taken with an interval of three months were negative to the Wassermann test. One month later a positive reaction was obtained. The spinal fluid gave a positive Wassermann reaction, positive Globulin and contained five cells per cubic millimeter. The "Goldsol" curve was of the paretic type. Diagnosis paresis.

Case No. 60. Three specimens of blood taken at an interval of one year were all negative to the Wassermann test. Five test swer made on the spinal fluid and all gave a positive W. R. with Globulin positive three times, negative twice; cells varied from sixty to none. Case indubitably paresis from physical and mental findings.

Case No. 7. The blood was negative to the Wassermann reaction on six tests. The spinal fluid was at first positive; became negative after Swift-Ellis treatment and then was persistently positive in spite of further treatment. Globulin was positive in the first four tests and negative the last three; cells varied from twenty-four to none. Patient taken home against advice and a few months later committed suicide. Clinical features at all times indicated paresis.

Case No. 8. Two specimens of blood have given negative Wassermann reaction and the single fluid taken was positive. Globulin positive; cells four per cubic millimeter. Diagnosis paresis by physical and mental findings.

The following table indicates the above results:

No. of Case	CEREBRO-SPINAL SYPHILIS						
	BLOOD		SPINAL FLUID				
	W. R.		W. R.		Globulin		Cells
	plus	minus	plus	minus	plus	minus	per cu. mm.
9	2	0	2	0	1	1	3-6
10	0	1	1	0	1	0	3
11	1	0	6	0	6	0	3-100
12	0	1	1	0	1	0	
13	0	1	1	0	1	0	2

II. Cases Diagnosed Cerebrospinal Syphilis.

Case No. 9. Wassermann on both blood and fluid positive twice; six weeks interval. Globulin was negative once and positive once; cells three and six respectively. "Goldsol" curve of the paretic type. The autopsy confirmed the diagnosis of cerebrospinal syphilis.

Case No. 10. Wassermann reaction; blood negative, fluid positive. Globulin positive; cells two per cubic millimeter. Autopsy showed cerebrospinal syphilis with focal lesions.

Case No. 11. One blood Wassermann positive. Six specimens of the spinal fluid taken over a period of ten months all gave a positive Wassermann reaction, Globulin always positive and the cells varied from three to one hundred. Diagnosis cerebrospinal syphilis, showing complete optic atrophy and blindness.

Case No. 12. Wassermann reactions; blood negative, fluid positive. Globulin test positive, cells five per cubic millimeter. Diagnosis cerebrospinal syphilis from paralytic residuals of cerebral episodes and pronounced mental symptoms.

Case No. 13. Wassermann reactions, blood negative, fluid positive, Globulin positive; cells two per cubic millimeter. Autopsy was refused. Diagnosis cerebrospinal syphilis. Partial paraplegia and mental symptoms.

The following table indicates the results in this group:

No. of Case	PARESIS						
	BLOOD		SPINAL FLUID				
	W. R.		W. R.		Globulin		Cells per cu. mm.
	plus	minus	plus	minus	plus	minus	
1	0	1	7	1	1	7	13—0
2	0	1	1	0	1	0	40
3	7	2	11	0	8	3	70—0
4	0	1	1	0	1	0	4
5	1	2	1	0	1	0	5
6	0	3	5	0	3	2	60—0
7	0	6	6	1	4	3	24—0
8	0	2	1	0	1	0	4

Summary—In the series of routine cases presented here:

1. A positive W. R. in the blood seems to be the rule, but even repeated negative findings do not exclude a diagnosis of paresis.

2. The blood W. R. may or may not be positive in cerebrospinal syphilis.

3. A positive W. R. was found in the spinal fluids of all paretics and cerebrospinal syphilitics.

4. The Globulin reaction was very inconstant in both conditions and of no aid in the differential diagnosis.

5. The cell counts varied greatly in both conditions, but was as great in one as in the other.

6. The five cases of cerebrospinal syphilis with uniformly positive W. R. in the spinal fluids, two positive and three negative bloods show clearly the difficulty in diagnosis by laboratory methods alone.

7. Cases three and five demonstrate the necessity of making a series of tests whenever possible.

8. Experience with these and many other cases inclines the authors to believe that all the bloods here reported as negative would have given positive reactions to Wassermann test if there had been an opportunity to make a series of tests.

9. Satisfactory diagnosis can only be made when the clinical and laboratory findings are considered together.

REFERENCES.

(1) American Journal of Insanity. Vol. 65, P. 662.

(2) American Journal of Insanity. Vol. 69, P. 243.

(3) Journal of Medical Research. Vol. 30, No. 30, P. 377.

Medical Ethics.

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Read Before the Linn County Society, January, 1915.

Medical Ethics, like the ethics of any other profession or calling, involves the principles of fair and just dealing with our fellow men, and calls for a high sense of honor, and in order that that sense may control the conduct of the individual there must be freedom from that consuming greed which spoils so many otherwise splendid characters.

Ethics indeed embraces the whole moral law, and, in fact but another name for the moral law. Lord Bacon said that ethics was the hand-maid to Divinity and Religion.

These observations indicate what a wide application the profession of medicine, which deals so intimately with the most delicate of human interests, is called upon to make of the principles of ethics.

I believe there is no other calling in which men engage which demands such an acute sense of what is right as the practice of medicine.

The medical profession is in such broad and close contact with the community, and has in its keeping so much of the deepest concern, not only to individual but to collective interests that only the most careful observance of the moral law can make its conduct safe either to those interests or to its own.

I think the subject of Medical Ethics falls naturally under five heads.

1. The physician's duty to his patient.

2. The physician's duty to his patient's family.

3. The physician's duty to the public.

4. The physician's duty to the pro-

fession.

5. The physician's duty to himself.

The duty which the physician owes to his patient is one of the most sacred obligations which man assumes to his fellow man.

It is his duty in the first place to make the very best preparation for his high calling that it is in his power to make and to bring to the bedside of each individual patient not only the best equipment he has been able to acquire from the schools and from current medical literature, but also the most agreeable personality it is in his power to present.

Brusque manners, which I have known to be assumed by some physicians, with the idea of impressing the patient and his family with a sense of his great ability have that effect only upon the ignorant.

The physician owes it to his patient to show for him a tender solicitude, a real interest in his case and to give it all the thought and consideration which its gravity demands. He should at all times assume a cheerful manner in the presence of the sick as the countenance of the physician is carefully scanned by the patient and what is expressed there may have a helpful or depressing effect according as it is reassuring or otherwise.

Until hope is passed it has always been my practice to speak in a manner to encourage the patient, but when that time comes, should he be in a condition to comprehend, to give him my honest opinion. On the other hand I have always made it a point to tell some member of the family the facts as I saw them. I never felt like hedging very much, preferring to take the risk of making a mistake in prognosis rather than to conceal my real opinion of the probable outcome of the case. I have known physicians assure a family that a patient was doing well and would be all right in a day or two when it was evident, and as events proved, a fatal

termination of the case was not twenty-four hours away. I have known this to happen, not once but several times. I think that anything approaching this is wrong and must react upon the physician himself, as indicating either ignorance or dishonesty.

Regularity in attendance upon a patient I think should be adopted in so far as it is possible; that is I think the call should be made as nearly at the same hour each day as can be. The patient expects the physician at about a given time and is more or less annoyed if that time passes without his arrival.

There are certain habits which though quite common among physicians as well as among men in general, one of which is the use of tobacco, I think should be abandoned. I believe that no one should go into the sick room with his clothing loaded with the fumes of tobacco smoke and his breath foul and offensive from smoking or chewing tobacco. A patient with a stomach on the point of revolt at the slightest offense and the brain giddy with fever may well protest against such contamination of the atmosphere around him.

Do not imagine that these remarks are made in a "holier than thou" spirit. On the contrary they come from a penitent and contrite heart, realizing its guilt in the past. For many years I was an inveterate smoker and must have been a stench in the nostrils of many a patient whose sense were in arms against all offensive odors. I abandoned the habit more than thirty years ago and have ever blessed the day that I summoned sufficient determination to do so.

I am sure it is not necessary to inveigh against the use of intoxicants by the physician. The time has come when no one who has the interest of his patient, the profession, or of himself, at heart will ever go into the sick room with the smell of liquor on his breath or its befuddling effects in his brain.

There is no one whose interest in a case of serious illness exceeds that of

the patient himself. I think the physician should at all times meet the suggestion for counsel with the utmost good feeling. I have known physicians to object to having counsel called until the very last moment and to take the position that the matter of calling counsel was their prerogative and that until they desired it no one had the right to suggest it. I think that is a wrong attitude to take and I always welcomed the suggestion for counsel, and if the prognosis seemed doubtful I usually made the suggestion myself, and thus, I believe, tended to establish myself in the confidence of the family rather than otherwise. For if the attendant shows an unwillingness to meet counsel he is open to the suspicion of fearing disapproval of his management of the case. Candor and sincerity will do more to insure confidence than all the finesse the most astute can practice.

Should the request for counsel come from the family while the attendant feels that the case is not especially serious, the family may exercise their choice of consultants, but if he feels the need of skilful advice in the case I think he should make his choice known and give his reasons for it. And the physician should understand that the patient's interest is paramount to any other interest.

It is hardly necessary to speak of the obligation resting upon the physician to observe with absolute secrecy the private personal facts relating to the patient or his family which come to his knowledge. These facts come to him only because of his close professional relation to the patient and should be sacredly kept in his own bosom. The physician cannot be too careful in speaking of any patient he may have. It is not in regard to grave and serious matters only that the physician is called upon to be silent, prudently abstaining from acquiring for himself and his brethren the unenviable reputation of the babbler, even the most inconsiderable circumstances as to the

sick are confidences which ought not to be disappointed or betrayed.

In a somewhat ancient but still readable volume it is recorded that Caliph Al-Mamun was a friend of science and exhibited his patronage of learning by fostering many learned men, among whom were some of our own profession. Among others of his numerous medical favorites was John Ocularius, the oculist, whose duty it was to visit the Commander of The Faithful every day, and that in his most private apartment alone. The Caliph gave him great honor and for his services allowed him a monthly stipend of a thousand gold sequins.

Upon one occasion as the physician came out of his master's apartment while passing through an anteroom he was asked by one of the servants: "What is the Caliph doing?" "He is sleeping," was the incautious reply. Unhappily for the doctor this reply was overheard by the successor of Mohammed, whereupon the culprit was sent for and brought before the chief of Islam. "What," said he to the offender, "Have I employed you as my physician and admitted you to my privacy in order that you should report to my servants as to my private occupation? Go out of my house."

The poor medico in relating this story to account for his fall added that the Caliph never afterwards would admit him into his presence, which was but just punishment for a professional indiscretion. And, it is added that the physician should reflect upon the punishment deserved by those who babble of the concerns of families or individuals. John Ocularius was turned out of the court of Al-Mamun for merely saying that his master was asleep. Suppose the young doctor should say: "My mistress has a sore leg."

This is, of course, an exaggeration of the demands of discreteness, but serves to emphasize the need for extreme caution in what we say regarding those

things which come to our knowledge in our professional capacity.

THE PHYSICIAN'S DUTY TO THE FAMILY OF THE PATIENT.

Absolute candor to the patient's family is due from the physician. Of course he cannot be expected to go into the details of the case but he should keep them informed regarding its progress and in a guarded way give them warning when danger of a fatal termination threatens.

Some physicians are in the habit of telling the patient and family what remedies they are using and what effects they expect. I think that only in exceptional cases should this be done. Of course there are times when it is proper and necessary to take the family in to our confidence in this and other matters which ordinarily it is best to keep to ourselves. The more the family and attendants are taken into partnership in the treatment of the case, beyond the field of legitimate nursing, the more trouble there will be for the physician and all to the detriment of the patient.

I think it is necessary to hold the case with a firm hand and by such evidence of mastery of the situation ward off the various surreptitious experiments which friends and neighbors are frequently disposed to try. I think the attendant should make it quite plain that he is in charge of the case and that any outside interference will not be permitted, and if such interference is persisted in he should surrender the case. Of course such a step is not likely to become necessary if the physician makes his feelings plain on the matter, and this can ordinarily be done without arousing animosity on the part of the family.

In the matter of selecting counsel a question sometimes arises which brings the attendant and the family into more or less antagonism. That is in the desire of the family or some member of it to call an irregular practitioner.

I believe the profession is more liberal in this respect in these latter days

than when I received my conception of medical ethics. In those days to meet a Homeopathist in consultation was sufficient cause for discipline in or expulsion from any medical society. And I think that still to bring into a case any of the so-called schools which in these days do so much abound, is to introduce an element of discord and can do no possible good and is capable of doing positive harm to the patient, to say nothing of its effects upon the profession.

There are features of some of these irregular systems which can be profitably and properly made use of, such as massage and the Swedish movement, of which Osteopathy is mostly composed. These are things which may be prescribed as other remedies are prescribed, but must be kept strictly under the direction and limitation of the physician. The trouble with these measures, some of them beneficial in themselves, lies in their having been erected into a complete and independent system of medicine, in which sense they should have no recognition by the profession.

It is not often that any conflict between the physician and a family of intelligence will arise over this matter, yet it some times will and may tax the resourcefulness of the physician to place the matter in its proper light, and if it cannot be done to the family's satisfaction he should withdraw from the case.

Of course there are many features of our relations to the family of which it is not necessary to speak but which may give the physician as much trouble to direct as the management of the case itself, and only firmness, patience and some understanding of human nature will enable him to meet the exigencies of the occasion as they arise.

THE PHYSICIAN'S DUTY TO THE PUBLIC.

The duty of the physician to the community in which he lives is possibly more weighty than even that to the individual patient, and is being recognized more and more as time passes, both by the

profession and the public. There was a time when it was thought the mission of the physician was confined to the treatment of disease, to the curing of the sick. The matter of preventing sickness received slight consideration. Sanitary science was something the public knew little of and to which the average physician gave too little attention.

We occasionally hear some one remark that the doctor wants a great deal of sickness and is happy when some epidemic is sweeping over the country. How false and unjust such a remark is we all know. Probably as much time and labor and as much brain-racking thought has been and is being expended in the effort to prevent disease as to cure it.

Preventive medicine is in fact the prime object sought by the world today. It is the duty of the physician to instruct his people in the laws of health, the common law of sanitary science. He stands upon the watch tower of Sanitary Zion and should be prepared at all times to give timely warning of approaching danger.

I believe that as a rule physicians are too lax in the enforcement of quarantine in contagious diseases. There is always such a clamor on the part of a quarantined family the moment the patient is convalescent that the physician is apt to yield a little of what he knows he ought to maintain. He ought to stand firm for what he knows to be for the general good and for the safety of the community. He may excite some ill-feeling on the part of those who are restrained but he will be doing his duty, and in the long run will have the appreciation and approval of the public, including those who criticised him for his obduracy. I think that every town, however small, should have a health officer with power to enforce sanitary measures.

The fact that the medical profession is the conservator of the public health should be recognized and some member

of it should be given power to enforce such measures as seem necessary for the protection of the public.

THE DUTY OF THE PHYSICIAN TO THE PROFESSION.

Every member of a learned and honorable profession owes to it as a whole a debt which can be liquidated only by such service as will reflect at least as great credit upon it as he receives from it. In other words, inasmuch as he is given an honorable standing in the community because of his membership in such profession it is his duty to make his career so creditable as to be a compensation for what he has received.

Not only does he owe to the profession as a whole such a life and such a career, he has certain obligations to its individual members with which he is in daily contact, the neglect of which nothing can excuse.

It is impossible, and unnecessary if possible, to enumerate all the points of contact between members of the same profession practicing in a community. There are a thousand opportunities either to observe or to violate the spirit of the moral law, the ethical principles which are applicable to the intercourse of physicians, and to them all the principles of fair play apply.

I think that the hunger for business, the desire for success in a commercial sense is, the chief factor in causing so many men to lose sight of the fine shades of ethical conduct.

A few examples. The ambitious man is called in consultation or to another physician's case in the latter's absence and in his desire for business he would be glad to hold the case, not alone for the fee but for the eclat, the reputation of supplanting another in a desirable family. He endeavors to throw some doubt on the accuracy of the diagnosis or questions the mode of treatment or allows others to do so without remonstrance. Perhaps, as I have heard of being done, he throws the attendant's medicine out-of-doors with some expres-

sions of contempt or in other ways seeks to convey the impression that the case might be better handled. As every physician knows patients and their friends are restless and anxious and if the case is not progressing to their satisfaction they will frequently consult another physician without the attendant's knowledge. Now if that individual is lacking in that keen discrimination between what is strictly honorable and what is dishonorable the attendant is quite likely to receive notice that he need not call again as another physician has been employed. And perhaps in the interview between the member of the family and the physician little more was said or done than to humour the whim of the complainant, and to accede, with some sympathetic protest, to the apparent fact that the case looked rather badly, but that perhaps it was not too late to save the patient.

None of you gentlemen may ever have had an experience of this kind and it is to be hoped you may never have, but such things have been and may be again.

One should hesitate to enter the family known to be of the clientele of another physician, and if called there an effort should be made to have a thorough understanding of the occasion of the call. It may be the temporary absence of the family physician, it may be from some pique of patient or family, or it may be because the patient is not recovering as rapidly as desired. If it be the first the call may be made with a clear understanding that the case remains in the hands of the regular attendant and the call should be reported to him at the earliest practicable moment. If the occasion of the call be either of the latter a consultation may perhaps be arranged and any dissatisfaction which may have arisen, or any undue anxiety which may exist in the minds of patient or family, be removed and good feeling among all parties maintained.

CONSULTATION.

Consultations offer exceptional oppor-

tunities for the exercise of the finest ethical sense as well as for the most subtle violation of the principles of fair dealing.

The consultant is regarded somewhat in the character of a superior authority by patient and family and his manner and methods and especially his comments are of special impressiveness to them. Hence it becomes him to measure his words and guard his acts with due consideration for the equities of the case.

The usual procedure, I think, is based on correct principles and should be followed in all cases. After the consultant has received as complete a history of the case and its treatment as the attendant can give him and he has made such examination as he desires, the two should retire beyond earshot of patient and family and go over the case as thoroughly as seems desirable and when conclusions are reached they should return to the patient or family, as circumstances of the case determine, and the consultant should state their conclusions as to the probable course of the case with such comments upon the treatment which has been agreed upon, as are proper and upon such past treatment as he can speak of approvingly. Regarding such matters as he cannot so speak, if there are such, let him be silent, having in view not only the patient's interest but that of the attendant also, and it is for the patient's interest that he be satisfied with his attendant unless there are very solid reasons for dissatisfaction. In other words we should do by him as we would wish him to do by us under similar circumstances. Should an agreement between a consultant and an attendant be impossible another consultant should be suggested, but under these circumstances I think it bad policy for the consultant to take the case as he will frequently be desired to do. Of course there is in this only what everyone understands but I have referred to this course of proceeding because I know it is not always followed

and sometimes dissatisfaction results because of failure to do so.

While the practice of medicine is a profession it is also a business and it is difficult for some men, especially those in whom the commercial instinct is strongly developed, to keep the professional standard elevated to such a height as to escape the mercenary plane on which business rests.

To such men the temptation to do more or less of what is known as grand-standing is irresistible. They pose, look wise, and talk of their achievements in their profession. They like to make a display of instruments or pathological specimens or otherwise do a little advertising on the side. When business is dull and the modest, well-equipped and ethical physician is in his office with his books and medical journals he may be seen driving furiously through the streets, out into the country as though he were a veritable Dr. Hornbook and like that worthy in haste to put death out of business. He talks learnedly to the young men of the town, letting them into many weighty secrets which, if not imaginary, were better kept in his own bosom. He has some remarkable cures to his credit and altogether he creates the impression that he is no ordinary individual. To be sure, as a rule the public soon come to understand all this and in due time the individual finds his proper level.

But we have all seen these things and appreciated the fact that such men have not the proper ethical spirit.

There is, or at least there formerly was, an impression prevalent among people that physicians were a jealous and quarrelsome lot, constantly trying to injure one another's reputation. That I think is a false idea. Whatever may have been the fact at some time in the past it has not been generally true in my experience of more than fifty years. During that time I have come in contact with a pretty large number of physicians and never had anything which ap-

proached the character of a quarrel with but one. With this single exception I have never had occasion to complain and so far as I know have given no cause for others to complain. Occasionally some minor lapse from the strict line of what is just and fair may disturb one's unanimity for a time but on the whole, with such exceptions as have been noted, physicians are high-minded, honorable men who can be trusted to do what is right. The character of their calling certainly should bind them in the bonds of fraternal feeling and as a rule I believe they are governed by such sentiments.

A PHYSICIAN'S DUTY TO HIMSELF.

Lastly we come to the physician's duty to himself, and I believe the earnest, honest physician consider his this duty last of all. He sacrifices himself, his comfort, his pleasures, even his health and the sweetness of life in the interests of his patients and the public. Surely there is compensation in the consciousness of duty done, of benefit conferred, of health restored, of life saved. Here and there is gratitude which is sweet to him, while in other cases there is little appreciation of his services. He has his friends and he has his critics. Life is not all a rose garden to him though he may pluck a flower here and there on the rugged way of his life.

I think that physicians should be more independent men than most of them are, and I think most of them might be. What I mean by independence is that they should adopt such a systematic method of business that they would not be so much subject to the whims of people. The physician is entitled to his rest, to his meals and to considerate treatment in the performance of his duties and it is his business to see that he gets them.

The public makes a slave of the physician, especially the country practitioner, by making unreasonable demands upon his time. Formerly it was largely the habit of the country people to defer

calling the doctor until all the affairs of the day had been attended to and then calling him in the night. The baby or some other member of the family had been ailing for a day or two perhaps. The farm work is pressing, the man is busy in the field. At the end of the day chores are done, supper eaten and then there is opportunity to consider the condition of the sick baby.

The fact that it needs medical attention is forced upon the minds of the father and mother and the doctor is called. The result is that he is kept out the greater part of the night, when he should have been called in the morning or perhaps the day before. In this way half of the calls which should have been made by daylight are made in the night.

Since the days of the telephone this particular phase of trouble does not exist to the same extent as formerly, but it is so easy now to call the doctor that they will call him at all hours and under all conditions with little if any consideration for his convenience or physical comfort.

Regarding the individual who is more or less indebted to the physician, I think it should by mutual understanding between the practitioners in a community, be made difficult to secure the services of another physician until his indebtedness is adjusted, not necessarily paid, to the satisfaction of the one to whom he is indebted. In protecting one's self in this matter he protects others, and of course it can be done only by co-operation of all the physicians in the town. As it is, the physician is too much at the mercy of the dead beat. To the honest poor the medical profession has always held its service subject to their call and always will, but from those who never intend to pay, and such are the earliest to call, the most exacting of his service and the first to find fault with it, from such the physician should protect himself, and he is entitled to the united support of his professional brethren in his efforts to do so.

The medical profession is the greatest and most efficient charitable institution on earth and like other charitable institutions should be protected against imposition and fraud. I think the profession should bring the dead-beat to realize his responsibility and to show at least proper respect for and appreciation of the service for which he is so ready to call and so unready to compensate or to properly appreciate.

Now, gentlemen, I wish to express my appreciation of the compliment conveyed in your invitation to come before you in the character of your essayist. My active connection with the profession was, as you all know, severed several years ago, but I have never ceased to feel a deep interest in medical matters and especially in the honor and achievements of the profession. In all the field of human endeavor I believe there have been no achievements more notable or more worthy of the world's applause than those which stand to the credit of the medical profession. And the field is still one which calls for the services of the best minds and the most earnest efforts of men devoted to the welfare of mankind.

I have a warm fraternal feeling for members of this noble guild and shall always rejoice to know of their success and prosperity.

Some Safety Pins.

I wish to report two cases of children having swallowed open safety-pins with no ill results except nervous prostration of the respective mothers.

To the young man just entering practice these case reports may furnish a precedent that will help him out of some similar dilemma.

Safety 1st—swallowed by Master Thomas W., aged 9 months. This pin was open, $1\frac{1}{8}$ inches in length.

No ill results were noticed until the eighth day, when the child became fretful and the pin was found fastened in the sphincter muscle from which it was

easily removed. This I classified as an "end" result.

Safety 2nd. Was duly devoured by Master Thane W., a husky lad of eight months of age. Case brought in by Dr. Muir of Pawnee Rock. Fluoroscope showed open safety-pin, point up in the oesophagus about four inches from the epiglottis. On account of the point being up no effort was made to remove it from above. Instead the child was anaesthetized and a medium size soft rubber catheter was gently passed back and forth several times. A second fluoroscopic view showed the pin nearly down to the stomach, but in the same relative position. The tube was reintroduced and the pin pushed into the stomach where the X-ray showed it lying transversely. Twelve days later it made its exit in the natural way and at no time did the child suffer any pain whatsoever.

Both of these babies were breast fed and in both cases some heavy barley gruel and bread and butter were added to regular diet. This may or may not have been modern scientific treatment but I question if any other would have increased the output of safety-pins per capita. My esteemed friend, Hon. Jacob Mohler, will bear me out in saying this is the chief aim to keep in mind.

Summary—Babies will eat safety-pins. Ordinary size safety-pins open or shut will pass through good babies without giving any trouble. (Sometimes).

Treatment—Calm the mother and watch the exit.

J. A. DILLON.

NOTES FROM THE MEDICAL SCHOOL.

The University Health Fee.

DR. JOHN SUNDWALL.

Much criticism has been directed towards the University as a result of the recent initiation of a \$2.00 health fee required of all students. And strange too, the bulk of this criticism has come from the medical profession who, above all others, are concerned in the health of

the public. Some members of this profession have even demanded the return of the fee—with the sarcastic comment appended—"I am able to take care of my own children."

All contraventions, however, to this new move on the part of the University when analyzed, clearly demonstrate that the view point of those who object is obscured. Only one minute angle of the work in hand is comprehended, and this angle which has received tirades of animadversions is to all intents and purposes the least with which the University is concerned.

Of course this particular angle which has obscured the larger vision of so many is that phase associated with the hospital and the treatment of students—curative medicine. And so intense has been the objection to this that an attorney has been employed by certain members of the medical profession to contest the legality of the health fee.

A very significant trend in education during the past few years is the appreciation of the fact that good health is fundamental to all sound intellectual work and that a rigid regulation of all conditions pertaining to hygiene is indispensable. It is generally conceded that the University has the authority to regulate and control student life in order that the most effective work can be done. For many years institutions of higher learning have inquired into and passed regulations respecting the conduct and habits of its students. It has said—"You must not dissipate. You must not indulge in late hours of social activities. You must not do this or that which may interfere with your studies." No serious or worthy objections have been voiced against the University's assumption of such control or questions raised as to its authority to enforce such regulations. That good health is the first requisite to intellectual progress is axiomatic and needs no argument. Then why should the University not regulate so far as possible conditions pertaining

to the health of its students.

PURPOSE OF THE FEE.

In order to initiate measures for the enforcement of health regulations a fee is indispensable. The first requisite to the realization of proper hygiene laws is to know definitely the physical condition of each and every student. One student with a "chronic cough" may infect with tuberculosis numerous individuals. Only by determining the exact physical status of each student can the affected individual be properly advised as to his future conduct and society at large be protected. To accomplish this individual examination proper facilities must be maintained. An infirmary including complete equipment must be instituted. Trained attendants must be constantly present. After all it is rather amazing to contemplate the activities that the University anticipates. When compared with the fee paid by students at many other similar institutions the \$2.00 fee asked by the University of Kansas is small, to say the least. Princeton taxes each student \$7.00; Harvard, \$4.00; Cornell \$6.00; Stanford, \$4.00; Wellesley, \$5.00; California, \$6.00; Michigan, \$4.00; Iowa, \$4.00; Texas, \$5.00.

The activities of the University respecting Hygiene are divisible into three groups: Instruction, Inspection, and Supervision.

Much instruction is given in Hygiene. Attendance at these courses is required of all students. University publications will be utilized for disseminating knowledge relative to health.

Inspection includes, of course, those activities concerned with the hygienic regulations of the student's environment; i. e., campus, its buildings—halls and class rooms; boarding and rooming houses; drinking water; etc. Inspections of these will be made at regular intervals.

Supervision consists of the formulation of rules respecting hygiene and the enforcement of such regulations, the examination of all students, and practic-

ally all those activities concerned with the administration of the student's hospital and dispensary.

The relative importance of these various phases of activities is inserted above in the order of moment—first, instruction; second, inspection; third, supervision. However, it is only the last named activity and only a portion of it to which opposition has developed. Let us therefore consider this phase more in detail.

The problem of the University respecting health regulations is not one of medical philanthropy but rather one of broad economy. It is primarily concerned with preventive medicine. It is chiefly concerned with that large body of students—say 95 per cent—who do not feel the necessity of consulting physicians although among them there may be many with unrecognized disorders. Unfortunately people consult the medical profession only when physical disorders are so far advanced that they interfere with activities, in many instances too late for the individual immediately concerned and perhaps after others have been infected as a result of social contact. Of course the other 5 per cent—those who do seek medical attention—must be in a measure cared for. They must be advised and treated both for their own welfare and that of the other larger group.

More specifically, some of the University's activities will be as follows: A thorough physical examination of all incoming students including, in addition to the usual examination, an examination of the condition of the mouth, nose, eyes, blood-counts, pressure, haemagobin, and certain excretions—urine, sputum, etc. These records together with other important information gained from the student will be utilized in the regulation of his activities in the University. Of course it is needless to state that all such records will be held as confidential.

The value of this phase of the work alone may be better appreciated by referring to the results of an examina-

tion recently held at Harvard: "Sixteen boys were found who needed to see an oculist. One student was entirely blind. Three students were somewhat deaf, and six boys needed to see an aurist. Thirty-three, or 5 per cent, had never been vaccinated against smallpox. Thirty-three students, or 5 per cent, had albumen in their urine. This was of great interest because these boys form a group which requires supervision. As a matter of fact the presence of albumen without other signs in young men is probably of little significance. Nevertheless a small number of these boys had been told that they had severe Bright's Disease, and one boy in particular had been given a bad prognosis elsewhere. This group of cases with albumen in their urine has been subsequently studied, and in none of them is there any evidence of actual kidney trouble. The reassurance that we were able to give the boys who knew they had albumen in their urine and were inclined to regard it seriously was most gratefully received. Already a number of these cases have entirely cleared up, but will still be under supervision.

Five freshmen had sugar in their urine at the time of the first examination. In two of them it has not been found since and was evidently only a temporary condition. In another sugar has occasionally been present. All three of these students are unquestionably benefitted by general advice and diet. In the case of two boys, the sugar has been rather persistently present. Both boys required dieting before the sugar was eradicated. One boy required very strict and careful supervision of his diet before he became normal. These boys are still on dietary restriction. None of these five boys presented any other symptoms, and none knew of the existence of any trouble before the examination. One was certainly a case of early diabetes, another probably so. Inasmuch as the outlook in diabetes, once established and causing sufficient symp-

toms to induce patients to seek medical advice, is almost absolutely bad in young adult life, it is felt that much may have been accomplished in the early detection and prompt energetic treatment of these cases. It now seems likely that this very serious disease has been averted in two and possibly five students.

There were nineteen freshmen who had some valvular trouble with the heart. In all these cases under the careful supervision, which is now possible during their college course, there is no reason to assume that their lives will be shortened by their trouble. Some 82 boys presented certain slight abnormalities in their heart action or blood pressure that, while not regarded as serious, has kept them under occasional observation.

Twenty boys presented some trouble with their lungs; in 8 cases it was simple bronchitis, and in 12 cases there was evidence of tuberculosis, but in no case was the tuberculosis sufficiently active or extensive to warrant anything more than advice and careful supervision. The importance of early detection and subsequent oversight of these young men with incipient tuberculosis is obvious.

There were a number of minor ailments too numerous to be cited here. A few only will be recounted. There was one student who had had hip trouble for over a year, but had had no systematic treatment. He knew he was coming to Harvard College and felt sure that he would get the proper treatment here. He had a tuberculous hip and it has been possible to keep him under expert treatment and at the same time allow him to remain in College. There were two boys who had been wearing trusses for many years for ruptures that no longer existed. Neither had seen a physician for some years."

In one examination conducted at California, 7 students were not admitted because of poor health. Later three of these died of tuberculosis. Appalling indeed might the consequences have been

had these been admitted. Incipient tuberculosis creeps into every University. Kansas has her quota. To you Physician who demands the return of the fee and derides our plans to control hygiene may we state: Yes, you are capable, possibly more so than we, to determine the physical condition of your own children but are you familiar with their conditions here? Perhaps their closest associates, their room mates, their surroundings—all may be conducive to ill omen so far as their health is concerned. Is a fee of \$2.00 inconsistent in return for the assurance that your children will be guaranteed the most hygienic conditions?

We must not overlook the benefits that will be derived from these physical examinations in the determination and assurance that the student is physically sound. Let me again quote from the Harvard report:

"But the greatest value of this examination to my mind, and with this I have been strongly impressed, is not so much the detection of existing disease but the assurance of a larger group of boys, who think that they have disease, that they are really sound. Curiously enough, there were more boys who thought they had a serious organic effect, usually of the heart, and were found entirely sound than boys who thought they were well and had disease. In many instances boys were worrying over ailments that were purely fanciful, but this worry was having a considerable effect upon their general condition. The importance of the compulsory physical examination seems to be as much the correction of erroneous idea concerning disease in the healthy as the detection of disease."

Other activities on the part of the University Health Committee are best comprehended in the following rules and regulations submitted to the Chancellor and the Board of Administration:

RULES FOR UNIVERSITY SANITATION.

1. All entering students will be required to submit themselves for careful physical examination immediately after entrance into the University.

Exemption to this rule will be made in case of any student who brings a satisfactory statement from a reliable physician stating that such an examination has been recently made and which gives the condition of the student. All students are earnestly advised to present themselves for examination at least once a year.

2. Spitting on the walks of the Campus, steps of any University building, or in the halls, recitation, lecture, or any other rooms of any University building is hereby forbidden. Violation of this rule will render the offender liable to suspension from the University. It shall be the duty of all officers and employees of the University to report all violations of this rule to the Chancellor.

3. Any student or employee with a chronic cough must be reported by instructors or officers to the Dean of the school concerned, or in case of employee, to the Supt. of Grounds and Buildings. He will then be referred to the Health Committee for bacteriological examination of the sputum. A report with recommendation will be furnished to the proper authorities.

4. Any student suspected of having any infectious disease must, upon the request of the Dean of his department, submit himself to examination at the offices of the University Health Service. A statement with recommendations will be furnished to the Dean respecting the condition of the student.

5. All officers and employees of the University suspected of having any infectious disease must, upon the request of the Chancellor, submit themselves for examination at the office of the University Health Service.

6. It is the duty of matrons, officers, or those in charge of all fraternities, sororities, clubs, and rooming houses to report to the University Health Service all cases of infectious diseases or illnesses which confines students to rooms.

7. All lockers used in the University for clothing must be antiseptically cleansed at least once each year and always upon the transference from one student to another.

8. All clothing kept in lockers for use in gymnasium, athletic field, and laboratories must be kept in sanitary conditions. Frequent inspection must be made by the officers of the department concerned.

9. Once a week a bacteriological examination of the Lawrence water supply will be made by the department of bacteriology and a report of each such examination will be published in the Daily Kansan and posted in the Student Hospital and Dispensary.

All waters used for drinking purposes at fraternities, sororities, clubs, boarding houses, and restaurants must be boiled, distilled, or certified to by the University Health Service.

Drinking water used on the Campus must likewise be treated. Paper cups will be furnished at cost by the Health Service. It shall be the duty of janitors to keep all bottles and receptacles used for drinking water filled during school hours. The vessels must be thoroughly cleansed as directed by the Health Service.

10. All houses and rooms used by fraternities, sororities, and clubs, and rooming houses shall be open to the University Health Service for inspection. The conditions of cleanliness, heat, light, ventilation, and all things pertaining to the health of the student will be ascertained and a report of the same will be kept on file at the office.

THE HOSPITAL AND DISPENSARY.

A well equipped hospital and dispensary.

ary including laboratory is now being established for the purpose of carrying on these various measures. Provisions are made for treatments chiefly of the ambulatory patients and a number of beds are provided for in case of necessity. Perhaps not more than 5 per cent of students will require hospital care. An isolated infirmary is also provided for contagious diseases.

That a well equipped infirmary is essential in every University is now regarded as a fact. From time to time students become ill and need the services of such an institution. Primarily however the Infirmary has been established as an instrument to serve in the broader activities of the University Health Service—that of maintaining health among the students.

It has not been established with any idea of competing with other similar institutions. Hospital care and treatment at the University will be given only so far as it serves in the realization of the broad hygienic activities of the University. It can not be filled with every student desiring treatment of one sort or another. The admittance of patients must be governed to a great extent by the relation that their disorders bear to the student social group. Of course the individual must be taken care of but in every instance, when he can afford it, he will be advised to seek treatment from other sources. Too much cannot be expected with so small a fee.

Ours is a health fee and not a hospital fee.

Preventive vaccination for typhoid fever, small pox and autogenous vaccines will be made. Doubtless other important phases will present themselves as the work gradually evolves.

CRITICISMS.

Numerable indeed are the criticisms that have been directed towards our project. These have varied from mere cavil to calumny. Doubtless many of the censures have been honest. In the first place the Health Committee here

consists of certain members who hold medical degrees. These have been accused of practicing without licenses and collecting fees from the students. This accusation was directed to the Secretary of the State Board of Medical Registration and Examination and upon his recommendation registration of these members is now essential and in the process of realization.

These members of the Committee are primarily interested both in teaching and research in their respective sciences. Their services on the Committee are for supervision and not medical practice. Never have they collected fees nor do they intend to do so. Suppose, however, that they were inclined in any way to practice medicine for fees, would not the very action of those members of the local profession who demanded that registration should be required of the committee, after all prove to be a detrimental reaction? Would it not throw on to an already overcrowded local profession three or four additional practitioners with a tremendous advantage because they are dealing with students? Fortunately for the local profession and especially those who have objected most, not one member of the health service will compete in any way for practice or accept fees.

Of course it is certain members of the local profession that are most concerned in this new move of the University. And so, because on the face of it they apparently will be deprived of some practice among students. The facts of the matter, however, are just the opposite. Probably not more than 5 per cent of students consult the medical profession. For is it not a fact that generally the physician is only called in case of more or less serious illness? Now the University Health Service will deal with 100 per cent of the students and as a result of its activities, it will discover many physical defects, unrecognized by the student, that should have medical treatment. It will be the policy to refer

all such students to competent physicians. In fact every student who can so afford will be encouraged to secure the services of physicians. Too much private attention cannot be expected from this fee. As a consequence of these activities is it not reasonable to assume that the local medical profession will be consulted more than ever? In fact the physicians of the state will be consulted more, for through our activities here by instruction, examination and precept the necessity of consulting physicians even in health will be emphasized. Of course our greatest concern here is that the people of the state will be reacted upon and a healthier Kansas be the outcome.

All physicians dealing with students will be welcomed to the facilities of the Infirmary. I am sure the physicians of Kansas will back the University in this matter.

MISCELLANEOUS.

Potassium Iodid Elimination.

W. H. Wovschin, New York (Journal A. B. A., Sept. 25, 1915), reports his studies on the elimination of potassium iodid by the urine. He took patients of the general ward type at the hospital, giving them 1 gram of potassium iodid and later examining the urine day after day, until the last trace had disappeared. For comparison whenever possible, the same patient was given a similar quantity of the drug per rectum and the urine treated in the same manner as before. He described his technic and remarks that it is to be noted that the greater part of the eliminated potassium iodid is excreted in the first twenty-four hours. From 5 to 10 per cent is given off the second day and a mere trace, or none at all on the third. As expected, the amount of potassium iodid excreted never equaled or even approximated the amount given, indicating that other methods of elimination, the skin, saliva, etc., excreted a considerable proportion and perhaps the product is utilized in thyroid protein molecuolization. Patients

who spit up a good deal excreted less iodid in the urine. In nephritic cases the excretion is the lowest, compared with other diseases, and when the drug was given in nephritic cases per rectum, there was a more notable elimination, credited perhaps to slow absorption and renal stimulation. In four pneumonia cases all the iodid excreted was on the first day. The blood pressure seemingly has no influence. Given by rectum to comatose patients, the same result followed as when given by the mouth. In one patient who later recovered consciousness a trace of potassium iodid was found in the spinal cord fluid. It could not be determined whether those patients who suffer from toxic and skin symptoms were those who excreted little through the urine. Some patients could not retain proctoclysis and only mouth determinations could be made.

Broadly speaking, nitrogen plays two roles with relation to life: At the behest of Nature, it nourishes; at the bidding of man, it destroys. Nature makes Peruvian guano; man makes gunpowder and nitroglycerin. Today the greater part of Europe is expending its fixed nitrogen in destroying life at a rate hitherto unknown in the world's history. "Every cannon-shot," says Duncan, "disperses in an instant the fixed nitrogen which it required millions of microbes centuries to accumulate." If a war as gigantic as that now raging in the eastern hemisphere could have occurred a hundred years ago, the question might perhaps have been asked whether the waste of so much of the world's supply of combined nitrogen was not a greater, because a more irreparable calamity than the destruction of life which it produced. The human race could replenish itself far more rapidly than the slow processes of Nature could restore to the earth the fixed nitrogen necessary to make it fertile.—(The Journal of the American Medical Association.)

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - - - - Editor

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Disease Carriers.

The importance of healthy carriers in the spread of disease is being more generally recognized as the results of systematic and thorough investigations are made known. The typhoid carrier has for some time been regarded as a prominent factor in the spread of typhoid fever. The peculiar relation of the carrier to the transmission of epidemic cerebrospinal meningitis has also been generally recognized. Recent investigations in regard to the contagiousness of whooping cough have given more prominence to the healthy carrier as a factor in the spread of this disease. And now comes a report of the investigations of Dochez and Avery (Jour. Exper. Med. July 1915) in which it is shown that there are undoubtedly healthy carriers of the more virulent forms of pneumococci.

In the earlier studies of the etiology of lobar pneumonia, pneumococci were found living in the upper air passages of many healthy people. They were regarded then and are still regarded, as a rule, as harmless parasites. Recent investigations have shown, however, that about twenty-five per cent. of all cases

of lobar pneumonia are caused by pneumococci of a type indistinguishable from those found in the mouths of normal individuals.

Investigations at the Rockefeller Institute have justified the classification of all pneumococci into four groups, the first three groups are found only in association with disease, are of highly virulent forms, and are responsible for about seventy-five per cent. of all cases of lobar pneumonia. In the fourth group are included the less virulent forms, those which cause occasional cases of pneumonia, and which are not distinguishable from the pneumococci found in the mouths of normal individuals. The investigations of Dochez and Avery have now shown that the more virulent types of pneumococci may frequently be found, for varying periods, in the mouths of those closely associated with cases of pneumonia, and in practically all such instances the organism found in the mouth corresponds in type with that which produced the disease. In thirty-two cases studied one carrier was found among the patient's associates in thirteen instances. In every such case the pneumococci isolated corresponded in type with that of the infected individual. It is also shown that the disease producing pneumococci may persist in the mouths of those recovered from lobar pneumonia for considerable periods.

The Pineal Body.

In recent years considerable interest has been shown in the pineal body, and clinical and pathological evidence has been presented to establish for it a place of some importance among the glands of internal secretion. If, however, further experiments coincide with those recently reported by Dandy (Jour. Exper. Med. August, 1915) it will be relegated to its former status as a curious thought uninteresting vestigial structure.

The possibility of an important relation between the pineal body and the

somatic and sexual development of the human body was perhaps first suggested by the reports, in 1898, of two cases of precocious sexual development, one by Huebner and one by Ogle, in both of which a teratoma of the pineal body was discovered at autopsy. Numerous cases of a similar nature were then collected and from these a fairly definite line of relations between certain conditions of the pineal body and certain developmental abnormalities was determined by Marburg. He advanced the theory that sexual development was controlled by the normal functions of the pineal gland and that sexual precocity resulted from hypopinealism, that adiposity was due to hyperpinealism and cachexia to apinealism.

These conclusions of Marburg were based upon clinical evidence, and no experimental work to determine their accuracy was done until very recently. Efforts to produce hyperpinealism by feeding pineal extract produced rather uncertain results. In animals a considerable increase in weight was observed while in children the gain in weight and height seemed to be retarded, although it was claimed that there was a marked mental improvement. Early experiments in the extirpation of the pineal body gave very confusing results. In fact, the results obtained by the different experimenters were so contradictory of each other as to be valueless.

After considerable difficulty Dandy has been able to perfect a technique for a successful pinealectomy on dogs. Of the pinealectomized animals he has been able to observe one for a period of fifteen months and several from three to eight months, but in none of these was there any manifestations of a somatic or sexual precocity. His conclusions are as follows:

"1. Following the removal of the pineal I have observed no sexual precocity or indolence, no adiposity or emaciation, no somatic or mental precocity or retardation.

2. Our experiments seem to have yielded nothing to sustain the view that the pineal gland has an active endocrine function of importance either in the very young or adult dogs.

3. The pineal is apparently not essential to life and seems to have no influence upon the animal's well being."

An Apology?

With its usual careless differentiation the Topeka Capital pronounces this Journal an "apologist for fee-splitters". Among the readers of the Journal there is none so afflicted with mental astigmatism as to distort our criticism of "Doctors versus Folks" into an apology for anything—except perhaps for the misinformed author of that very excellent book.

The Journal is mostly concerned with the medical profession of Kansas and, therefore, finds no occasion to offer an apology for fee-splitters. The statement by the Capital, that fee-splitting is the rule rather than the exception in this state, is neither proof of the charge nor even admissible evidence. We have simply endeavored to defend the profession of Kansas against a groundless and vicious charge.

We insist, however, that the method of fee-splitting approved by Dr. Morris, endorsed by the Capital, and permitted by the legislature, is as capable of pernicious manipulation as the method which they condemn. There is no method of doing it that will render the practice of fee splitting inadaptable to the requirements of medical grafters. There is no method of doing it that will render the practice of fee splitting less disadvantageous to the surgeon or specialist. There is no method of doing it, whether devised by great surgeons, newspapers or politicians, that will render the practice of fee splitting more creditable to the medical profession.

New Jersey Comes In.

The Journal of the Medical Society

of New Jersey, on the front page of its September number, makes the following announcement of a change of policy.

"We have consummated a great step for progress, honesty and truth. With this issue of the Journal of the Medical Society of New Jersey we have removed all objectionable advertising and will not, in the future, print the advertisement of any individual product not sanctioned by the Council on Pharmacy and Chemistry of the American Medical Association; and our other advertising matter will receive the same careful scrutiny that the editor gives the scientific and news pages.

"Our subscribers can now feel that the wares or facilities offered in our advertising pages are bona fide and carefully selected, and that they are in duty bound to patronize our advertisers.

"Our advertisers will appreciate that they will be in a fit company and that these pages now being read will repay them."

We congratulate the Publication Committee on this very important step. It is not always an easy thing to cut out a considerable amount of good paying advertising, but once having recovered from the change it is not difficult to keep the pages clean.

Osteopaths and Narcotics.

12—Med Jour

Editor Journal:

As a representative of the Council of the Kansas Medical Society, I wrote to the Attorney General, S. M. Brewster, and asked him for his opinion relative to osteopaths prescribing narcotics under the Harrison Act. I received a reply, of which I am enclosing you a copy. I thought perhaps it might be well to publish this in the Journal.

Very truly yours,

CHAS. S. HUFFMAN.

Spt. 14, 1915.

Dr. Chas. S. Huffman,
Columbus, Kansas.

My Dear Senator:

Yours 4th inst. was duly received and on account of absence answer has been delayed.

I do not construe the law in regard to the practice of osteopathy to entitle a doctor of osteopathy to administer or prescribe narcotics. That seems to come clearly within the practice of medicine, and consist in the handling of dangerous drugs, and I believe that our law relating to the practice of medicine must govern, and that it is not within the practice of osteopathy.

Yours very truly,

S. M. BREWSTER,

Attorney General.

Only politicians and writers of fiction are privileged to handle the truth as it may suit their peculiar needs. Writers of fiction have no use for the truth except when it sounds like fiction. Politicians endeavor to make their fiction sound convincingly truthful.

Naturally neither of them has much respect for that which they are so accustomed to juggle for the entertainment and applause of the public.

One of the Kansas newspapers, which parrots the Capital in its efforts to convince the people of the total depravity of the medical profession of this state, is edited by a man who was once, we are informed, a politician. He is now a reformer, and a pretty good one too. He has the oratory, the personality and the aggressiveness, which go to make success in that line. But reformers are pretty much all alike, they practice reforming mostly on the other fellow, and only in one direction at a time. Still we were seriously shocked on observing in this particular newspaper a great display advertisement of Hostetter's Bit-ters. Even the Topeka Capital wouldn't do that—now.

From the occasional very satisfactory results following tonsillectomy one

should not conclude that removing the tonsils is always sufficient to protect the patient against those diseases for which these organs are so commonly held responsible.

Young (Boston Medical & Surgical Journal) reports in detail twenty-one tonsillectomized cases, with special reference to the occurrence of chorea and endocarditis. Six of the twenty-one cases had previously had tonsillitis, five had had arthritis. After the operation three of the latter were free from arthritis and two had subsequent attacks. Nine of the twenty-one cases had chorea previous to the operation and eight of these had subsequent attacks. Four cases had chorea who had no history of previous attacks. Twelve of the twenty-one cases had endocarditis before the operation. At the time of this report seventeen cases showed evidence of chronic endocarditis. He concludes: "The occurrence of chorea after tonsillectomy in twelve out of twenty-one cases strongly suggests, however, that removal of the tonsils does not offer the protection against chorea, and the always present possibility of endocarditis, that many have heretofore believed."

SOCIETY NOTES.

RENO COUNTY SOCIETY.

The Reno County Society met Friday evening, October 1. A good program was presented and there was a good attendance.

Dr. W. C. Bundurant presented a paper on "Fracture of The Olecranon." Dr. C. L. Sprouse read a paper on "Local Anaesthesia."

The Medical Society of the Seventh District will meet in Hutchinson October 28. There will be an all day meeting and a good program.

GOLDEN BELT MEDICAL SOCIETY.

The regular quarterly meeting of the Golden Belt Medical Society was held in Salina, Thursday, October 7th. The following program was prepared for this

meeting:

Afternoon Session, 3:30 p. m.

St. John's Hospital

Medical Clinic—Dr. Thor Jager, Wichita, Kan.

Dinner—Lamar Hotel, 7:15 o'clock.

Evening Session.

Paper—"Syphilis of the Bones and Joints," illustrated by stereopticon, Dr. Michael J. Ford, Omaha.

Lecture—"Quasi-Medical Practice," Dr. Paul Paquin, Director Health Department, Kansas City, Mo.

SHAWNEE COUNTY MEDICAL SOCIETY.

The following amendment to Chapter 1 of the By-Laws was introduced at the last meeting of the Shawnee County Medical Society.

"Sec. 10. A member of this society may be enrolled as an emeritus or honorary member by a majority vote at any regular meeting, nomination of such member having been made at a previous meeting, such action being based on years of faithful service in the profession, or on other grounds acceptable to the society. Such emeritus or honorary member shall be duly certified as such to the Secretary of the State Society; shall be entitled to all the benefits and privileges of active members, but shall be exempt from the payment of dues and assessments."

The following resolution was also passed at the September' meeting and a copy ordered sent to each member of the society:

"Resolved, That it is the sense of the 14—Md. Jour.—Bauer

Shawnee County Medical Society that its members should prevent, so far as possible, all professional allusion to themselves, their work or their opinions in the newspapers, and should be required to disclaim such as do occur, and disprove their responsibility for the same, or take deserved censure for unethical conduct."

ARTHUR K. OWEN, Secretary.

NORTHEAST KANSAS SOCIETY.

The following program has been prepared for the meeting of the Northeast Kansas Medical Society which will be held in the Commercial Club Rooms at Topeka, October 28. Visiting members will be entertained at dinner at the National Hotel.

Pellagra—With Report of Case.....

.....T. E. Horner, Atchison
Clinical and Theoretical Aspect of
Haemorrhagic Diathesis

.....W. W. Duke, Kansas City, Mo.
Suggestive Healing

.....C. M. Seiver, Holton
The Action of Organic Salts of Mag-
nesium and Calcium on Muscular
Contraction....Prof. S. A. Matthews

Kansas University
War Hospital Experiences—Illustrated

.....W. S. Sutton, Kansas City
Neglected Factors that Determine Suc-
cess or Failure in Surgery.....

.....G. W. Jones, Lawrence
Practical Points Regarding the Was-
sermann Reaction...Capt. C. F. Craig,

M. D., U. S. A., Fort Leavenworth
Paper.....C. F. Menninger, Topeka
Officers: G. W. Jones, Lawrence,
Pres.; J. J. Brady, Frankfort, Vice-Pres.;
J. L. Everhardy, Leavenworth, Sec-
Treas.

SALINE AND LINCOLN COUNTY SOCIETIES.

A joint meeting of the Saline County and Lincoln County societies was held in the City Hall at Lincoln, Thursday, September 2. The meeting was largely attended, many from fifty miles away. The visiting members were banqueted by the Lincoln profession.

The program was as follows:

Remarks on Strabismus.....

.....Dr. C. D. Armstrong, Salina
Modern Aspect of Antiseptics in Sur-
gery....Dr. Malcolm Newlon, Lincoln

Infection of Tonsils and Adenoids...

.....Dr. Earl G. Padfield, Salina
Animal Therapy

.....Dr. G. M. Anderson, Lincoln
G. M. Anderson and Howard N. Moses,
Secretaries.

SOUTHEAST KANSAS MEDICAL SOCIETY.

The Southeast Kansas Medical Society held its semi-annual meeting in Pittsburg, Thursday, September 30th, under the presidency of Dr. P. S. Mitchell.

The following is the program:

1. President's Address, "One Hundred Years of Medicine," Dr. P. S. Mitchell, Iola.

2. "The use of the Conjunctival Flap to cover Corneal Ulcers," Dr. W. H. Graves, Pittsburg.

3. "Some Studies in Bismuth Examina-
tions of the Gastro-Intestinal Tract,"
Dr. J. L. Grove, Newton.

4. "Endometritis," Dr. R. C. Hender-
son, Erie.

5. "Gastro Enterostomy: Indications,
Contra Indications, and Results," Dr.
John H. Outland, Kansas City, Mo.

6. "Out of Joint," Dr. T. A. Stevens,
Caney.

7. "The Most Valuable Treatment for
Glaucoma," Dr. H. C. Markham, Parsons.

8. "Pathology and Diagnosis of Leuk-
emia," Dr. W. K. Tremble, Kansas City,
Missouri.

9. "Some Methods of Treating the In-
sane," Amelia A. Dickinson, Iola.

After the afternoon session an auto-
mobile ride around the city was given,
after which we returned to the Masonic
Temple where an elaborate banquet was
served.

DR. T. D. BLASDEL, Secretary,
Parsons, Kan.

WYANDOTTE COUNTY SOCIETY.

The Wyandotte County Society met at the Commercial Club rooms in Kansas City, October 5th. The subject "Business" was discussed by Dr. J. F. Hassig and the subject "Ethics" by Dr. W. F. Fairbanks. The by-laws of this society provide that "at least one meeting during the year may be set apart for a discussion of the business affairs of the profession of the county, with the view of adopting the best methods for the guidance of all."

BOOKS.

THE CLINICS OF JOHN B. MURPHY, M. D.

Volume IV. Number IV., Augst, 1915. Published by W. B. Saunders Company, Philadelphia and London. Published Bi-monthly. Price per year, \$8.00.

This number exceeds in excellence any that have gone before and it covers a great many subjects of the most vital interest. The operations are not only very carefully described by the author, but the text is finely illustrated so as to show the various steps that are taken.

THE MEDICAL CLINICS OF CHICAGO.

Volume I. Number II. (September, 1915). Octavo of 194 pages, 44 illustrations. Philadelphia and London. W. B. Saunders Company, 1915. Published Bi-monthly. Price per year. Paper, \$8.00. Cloth, \$12.00.

Number 2 of the Chicago Medical Clinics has just been received and it is fully up to the standard set by the first number. There are several clinics by Dr. Isaac A. Abt followed by a contribution by Dr. W. A. Pusey, on x-rays and Epithelioma. Then there are clinics by Dr. Frederick Tice, Dr. Walter W. Hamburger, Dr. Robert B. Preble, Dr. Maurice L. Goodkind, Dr. Ralph C. Hamill, Dr. C. S. Williamson and Dr. Chas. L. Mix. These clinics cover a large variety of subjects.

Syphilis as a Modern Problem.

By WILLIAM ALLEN PURSEY, M. D., Professor of Dermatology in the University of Illinois. Price, cloth, 50 cents; paper, 25 cents. Pp. 129. Chicago: American Medical Association, 1915.

The following review appeared in The Journal of the American Medical Association for Sept. 18, 1915, p. 1051.

This book is a monograph reprinted from the Commemoration Volume issued by the American Medical Association "as a tribute to the medical sciences which made possible the building of the Panama Canal and the Panama Pacific Exposition."

The publication of this discussion of the present status of one of the so-called three great plagues—syphilis, tuberculosis and cancer—is opportune. Two decades ago tuberculosis, the fellow of

syphilis in this triad of diseases, was as little understood by the everyday man as syphilis is today. In the comparatively brief interval of twenty years, a campaign of education and organized propaganda for the combating of consumption has transformed the situation. The forces of intelligent public opinion and of public and private funds, and the power of disinterested men and women have brought into being a great system of physical and educational aids for the tuberculous which have begun to realize their full possibilities. Against cancer our ignorance limits our capacity for effective control. Yet even in the case of cancer there are large endowments for study, and a consistent campaign for the better education of the public is under way.

Against syphilis, on the other hand, little or no social headway has been made. The confounding of sanitary aspects of a communicable disease with questions of morals, and the effects of a traditional prudery have stifled advance in the social control of this disease. The United States is conspicuous in this backwardness. In strange contrast with this situation, medical knowledge of syphilis has advanced in the last decade with unparalleled rapidity. At the present time it is safe to rank the strategic position in regard to its sanitary control as equal to that for the control of malaria and yellow fever. In one direction, medicine holds syphilis in the hollow of its hand; two generations of intelligent attack could see it reduced to the status of a sporadic infection. In the other direction, the unwillingness to act of the public, on whom help depends, has prevented all organized effort for the control of this disease. Syphilis is a sanitary problem, that it must and will be solved by society sooner or later is inevitable. Its importance cannot be exaggerated! It breeds misery and perpetuates it. It is a source of public cost, a drain on human efficiency, and a stumbling block in the progress of mortality

and decency whose all-pervading influence is appreciated only by those who work with it all the time. Into this situation Dr. Pusey's book projects itself with a peculiar force. It considers syphilis from the standpoint of its effect on society; not as a disease which medicine is called on to treat. The whole subject is broadly sketched; its course and its pathology are given in sufficient detail to allow the reader to get a mental picture of the disease. Preceding this there are three chapters on the history of syphilis, the most complete statement if this subject in English, which furnishes a unique historical perspective. The rest of the book concerns the study of the general problems of syphilis; the prognosis of syphilis, syphilis and marriage, the etiology of syphilis, and the prophylaxis of syphilis. In these chapters such subjects as the relative frequency of tabes and paresis, the effect of syphilis on length of life, the time when the syphilitic may marry, the prevalence of syphilis, its comparative frequency in men and women, the question as to whether or not syphilis is on the increase, and syphilis and prostitution are considered. The whole book is a foundation for the last chapter—the prophylaxis of syphilis. Here the author shows how syphilology has finally arrived at a point where the prevention of syphilis is practicable by sanitary measures. He points out what these measures are, and so furnishes the strongest argument for the inauguration of an organized sanitary attack on this disease.

The work is eminently sane and without sensationalism or exaggeration. It does not affront with needless horrors, nor is it written in the spellbinding style of campaign literature. The book is fitted to serve as a guide to a sustained and effective interest in the problem on the part of intelligent readers. It is not a medical textbook, nor is it a primer. It is intended for the intelligent lay reader, but it may be read with equal profit by the intelligent physician. It

considers syphilis from a detached point of view, from which point the physician ordinarily does not think of it. It is filled with facts which are carried through to legitimate conclusions, and from which are deduced practical suggestions, and is worthy of the thoughtful consideration of intelligent men and women.

THERAPEUTIC NOTES

New and Non-Official Remedies.

Editor Jour. of the Kansas Med. Soc.

During September the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-Official Remedies:

Cutter Laboratory: Anti-Pneumococcal Serum: Syringes 10 cc. Diphtheria Antitoxin Globulin: Syringes 2,000, 3,000, 4,000, 5,000 and 10,000 units each. Normal Serum (from the horse): Syringes 10 c.c. Tetanus antitoxin: Syringes 10 cc.

Hoffmann-LaRoche Chemical Works: Imido, Roche: Ampules Imido Roche.

H. K. Mulford Co.: Mercurialized Serum, Mulford: Mercurialized Serum Nos. 1, 2, 3, 4, 5, 6.

Schieffelin and Co.: Radia-Rem: Outfit No. 4.

Standard Oil Co. of California: Calol Liquid Petrolatum, Heavy.

Morgenstern and Co.: The Council has recognized Morgenstern and Co. as selling agent for Dolomol and the Dolomol preparations in New and Non-Official Remedies. The Council is assured that these preparations will be marketed in accordance with its rules.

White Chemical Co.: The Council has recognized the White Chemical Company as selling agent for Apinol. The Council is assured that this preparation will be marketed in accordance with its rules.

W. A. PUCKNER, Secretary.

Council on Pharmacy and Chemistry.

Since publication of New and Non-Official Remedies, 1915, and in addition

to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-Official Remedies."

Pantopon (Pantopium hydrochloricum).—A mixture of the hydrochlorides of the alkaloids of opium, containing 50 per cent of anhydrous morphine hydrochloride. It produces essentially the effects of opium, but, being devoid of opium extractives, may be used for hypodermic administration. It is probably absorbed more promptly and is free from nauseant odor and taste of ordinary opium preparations. Pantopon (pantopium hydrochloricum) is also supplied as Pantopon (pantopium hydrochloricum) tablets 0.01 gm., Pantopon (pantopium hydrochloricum) hypodermic tablets 0.02 gm., and pantopon (pantopium hydrochloricum) ampules 0.02 gm. The Hoffmann-LaRoche Chemical Works, New York City (Jour. A. M. A., Sept. 4, 1915, p. 877).

Laroson, Roche.—Calcium caseinate, containing calcium equivalent to 2.5 per cent calcium oxide. In the treatment of diarrheas of infants a useful food is that made from the curd of milk and diluted buttermilk. The preparation of such a mixture of proper composition being difficult to prepare in a private home, Larosan, Roche is offered as a substitute. The Hoffmann-LaRoche Chemical Works, New York City (Jour. A. M. A., Sept. 4, 1915, p. 877).

Betanaphthol Benzoate-Merck.—A non-proprietary preparation of betanaphthol benzoate (see New and Non-official Remedies, 1915, p. 210). Merck and Co., New York (Jour. A. M. A., Sept. 4, 1915, p. 877).

Desiccated Pineal Gland, Armour.—The pineal gland of normal cattle, freed from connective and other tissues, dried and powdered. There is some evidence that there is a relation between the pineal gland and some processes of development and growth. The therapeutic

use of the gland is in the experimental stage. Pineal gland, Armour is also supplied as Pineal Gland Tablets, Armour, 1-20 gr. Armour and Company, Chicago (Jour. A. M. A., Sept. 25, 1915, p. 1111).

Scopolamine Stable, Roche.—An aqueous solution of pure scopolamine hydrobromide protected against decomposition by the addition of 10 per cent of mannite. It has the properties of scopolamine hydrobromide, U. S. P. It is supplied in ampules, each containing 1.2 cc. (1 cc. contains 0.0003 gm. scopolamine hydrobromide). The Hoffmann-LaRoche Chemical Works, New York (Jour. A. M. A., Sept. 25, 1915, p. 1111).

Coagulen, Ciba.—An extract said to be prepared from blood-platelets and to contain thromboplastic substance mixed with lactose, 1 gm. representing 20 gm. dried blood. It is said to act as a hemostatic and to be useful in the treatment of local and certain internal hemorrhages. Solutions of Coagulen, Ciba, are used locally, intramuscularly and intravenously. A. Klipstein and Co., New York (Jour. A. M. A., Sept. 25, 1915, p. 1111).

Calol Liquid Petrolatum, Heavy.—A non-proprietary brand of liquid petrolatum, U. S. P., said to be derived from California petroleum and to consist essentially of hydrocarbons of the naphthene series. It is colorless, non-fluorescent and practically odorless and tasteless. Its specific gravity is 0.886 to 0.892 at 15 C. Standard Oil Company of California, San Francisco, Cal. (Jour. A. M. A., Sept. 25, 1915, p. 1111).

Tetanus Antitoxin for Human Use.—Marketed in syringes containing 1,500, 3,000 and 5,000 units each. Cutter Laboratory, Berkeley, Cal.

Diphtheria Antitoxin, Globulin.—Marketed in syringes containing 2,000, 3,000, 4,000, 5,000 and 10,000 units each. Cutter Laboratory, Berkeley, Cal.

Anti-Pneumococcic Serum.—Marketed in syringes containing 10 c.c. Cutter Laboratory, Berkeley, Cal.

Normal Serum (from the Horse).—Marketed in syringes containing 10 c.c. Cutter Laboratory, Berkeley, Cal. (Jour. A. M. A., Sept. 25, 1915, p. 1111).

Concentrated Antidiphtheric Serum.

Recognizing the inconvenience and other objectionable features attending the subcutaneous administration of bulky doses of diphtheria antitoxin, some of the leading manufacturers years ago sought to isolate the antitoxin from the serum, in an endeavor to obtain a product that would represent as great a number of antitoxic units as possible in small compass. Experiments disclosed the fact that the antitoxic element in the serum is a globulin, or has such properties that it precipitates with the globulins. Various methods, all of them based upon the principle of repeated precipitation, have been employed to eliminate the non-essential portions of the serum, leaving only the globulins or antitoxin. The method employed in the laboratories of Parke, Davis & Co., results in a globulin that is free from many of the albuminous substances that cause the undesirable by-effects which sometimes attend the administration of antitoxin. These proteins, which are removed in the process of concentration, are largely responsible for the toxic symptoms which serums may produce in susceptible patients. With the concentrated serum (globulin) it is found that rashes and other undesirable symptoms occur less frequently than with untreated serum, and when they do appear they are of a milder type.

In the production of Parke, Davis & Co.'s diphtheria antitoxin, care is exercised that the horses selected for the purpose shall be absolutely free from disease. In pursuance of this purpose the animals are kept for several days under close observation in a detention stable. During this time thorough physical examinations are made by competent veterinary surgeons. Not only must the animals be healthy and vigorous

when inoculated—they must be kept so; and they are fed, stalled, groomed and exercised with this end always in view.

A Perfect Diet System at the Battle Creek Sanitarium.

It is quite generally conceded that the diet system worked out by The Battle Creek Sanitarium and followed by that institution represents the best scientific thought on the subject.

The system which was designed principally for the invalid, but is also adaptable to the nutritive needs of the well, is based upon the calorific method of determining energy value.

Members of the medical staff, in addition to the general medical supervision of their patients, prescribe their diet. This prescription is carefully enforced by a dietitian, also assigned to the case. Food for specially prescribed diets are prepared in the diet kitchen with scientific precision.

The dietitians, who are trained in the School of Home Economics and Dietetics, affiliated with the sanitarium are on duty, at all times in the sanitarium dining room to assist patients and guests in ordering their meals.

Avaluable feature of the system is that patients come to understand the system and with it the fundamentals of food properties and are enabled upon leaving the sanitarium, to follow the course of diet best suited to their individual needs.

Sample menus outlining the sanitarium system of diet may be obtained upon request.

One Hundred and Fifty Years Old.

The Physicians' Supply Company, 1021 Grand Avenue, our city, has installed an old English loom for weaving Elastic Stockings, Abdominal Supporters, etc., and the weaver may be seen any time operating this old loom in their show window.

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The Early Recognition of Ruptured and Unruptured Ectopic Pregnancy.

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Read before the Douglas Park Branch of the Chicago Medical Society on May 18, 1915.

There are two distinct phases of my subject this evening. In the light of modern surgical teaching the failure to make an early diagnosis in the one case is not only inexcusable but even reprehensible. The making of an early diagnosis in the other aspect of the question is often an exceedingly difficult matter, but is not by any means impossible. Skillern, of Philadelphia, expressed this succinctly when he remarked: "Early preperforative diagnosis of gastric ulcer and of appendicitis is aimed at; why not the early preperforative diagnosis of extrauterine pregnancy as well?" At least such should be the aim of every man in general practice, for he is the first to be called in to see these two very distinct clinical aspects of ectopic gestation.

RUPTURED ECTOPIC PREGNANCY.

In January, 1914, I received a hasty summons one morning at 10 o'clock, by telephone, to come at once to the West Side Hospital. The speaker, a stranger to me, informed me that his wife had just been taken to the hospital suffering from what was supposed to be a ruptured extrauterine pregnancy. The message was imperative, and I was requested to reach the hospital without delay. In ten min-

utes I was there and found the patient just admitted and in profound collapse. She was pulseless at the wrists. Her face and skin generally were blanched and moist with perspiration. Her corneæ were wrinkled and glazed. Her appearance was that of an individual in extremis and practically moribund. I immediately ordered her to the operating room, fully expecting her to die before she left the operating table. While hastily making my surgical toilet I asked Dr. Nagle, who chanced to be present, to make an intravenous injection of normal salt solution. This he attempted, but so exsanguinated was the patient that it was impossible to find a vein, and he left the room, not wishing to see the fatal termination. As the first whiffs of ether were administered I made the abdominal incision, not waiting for the stage of full unconsciousness. The tissues of the abdominal wall were bloodless, but so great was the intra-abdominal effusion of blood that the fluid squirted as from an artery when the peritoneum was knicked, and the interne attempted to seize with a hemostat what he thought was a spouting vessel. It required but a few seconds to evacuate the abdominal content of fluid and clotted blood and to expose the source of hemorrhage—which was no longer bleeding. It was a small hematomatous area situated at the left uterine cornu, both tubes and ovaries being normal in every respect. A hasty saturation of this point followed by removal of the left appendage completed the surgical procedure. All clots were removed, the peritoneal cavity filled with normal salt solution, and a

hasty closure of the abdominal wound accomplished. The patient, with dependent head and thorax, was removed to her room, those who were present expecting her to die at any moment. Gentlemen, she recovered, but so profuse had been her hemorrhage that eleven days after the operation, notwithstanding the best of hematopoietic treatment, her red blood-corpuscles numbered but two millions and a quarter. She had lost more than half her blood.

INTERSTITIAL PREGNANCY.

Now, why do I relate, thus briefly, the clinical history of this desperate case of ruptured extrauterine pregnancy? For two reasons. In the first place, because this was an instance of tubouterine, or interstitial pregnancy—one of the rarest forms of ectopic gestation, and only the second case that I have seen in twenty-five years, the first of which terminated in death.

Such a pregnancy, as Stone has indicated, occurs in that portion of the Fallopian tube which traverses the uterine wall, which portion is but seven lines in length and one line in diameter, and is, therefore, utterly incapable of much distention. Consequently, interstitial pregnancies always rupture at a very early date—even as early as the second week, as has been recorded. As nearly as I can estimate, the rupture occurred in the case I record tonight at about the third week of the pregnancy. Lawson Tait states that “up to the year 1890 there were only six specimens of interstitial pregnancy in the English museums.” Schmitt, in 1801, described the first case that was recorded; Breschet, in 1828, recorded the second; and Mayer, the same year, added two more cases. Pfaff, of Leipsic, published in 1826, a work showing the pathology of interstitial pregnancy. Within the next sixty years from a dozen to twenty cases only of interstitial pregnancy were reported. These two factors, therefore—namely, the great rarity of the condition and the early date of rupture—must necessarily make a preperforative diagnosis of interstitial pregnancy very difficult if not absolutely impossible.

My second reason for reporting this case was the history which I obtained after the operation—a history which is typical of so many cases of ruptured extrauterine pregnancy. No less than five doctors had seen this woman from the time of rupture at about six o'clock the previous evening to the moment of diagnosing the presence of internal hemorrhage at nine o'clock the following morning. It was the fifth man who announced to her husband that the patient was bleeding to death internally. Four had failed to recognize a condition which should have been as evident from the clinical manifestations as if the diagnosis had been stamped in letters upon the patient's body. Abortion, acute gastritis, acute indigestion—as such is the rupture commonly diagnosed, not to mention many other possible or impossible conditions with which it has been confounded.

TUBAL RUPTURE AND TUBAL ABORTION.

Gentlemen, no medical man should fail to recognize the symptoms of rupture of an ectopic pregnancy with internal hemorrhage; and when I say “rupture” I include that interesting analogous condition known as tubal abortion, in which the outer aspect of the gestation-sac ruptures within the tube without evident laceration of the tubal wall, and the hemorrhage escapes through the fimbriated extremity of the Fallopian tube. Tubal abortion, which was first described by Werth as late as 1887, is frequently accompanied by massive hemorrhage. It is by no means as common a condition as tubal rupture, and occurs, as a rule, at a later period in the pregnancy. When it does occur the symptoms are precisely the same as those of tubal rupture.

THE DIAGNOSIS OF TUBAL RUPTURE.

Occurring in a patient in whom there exists the possibility of a pregnancy advanced to one or two months—the common time of rupture being between the fifth and seventh week—the symptoms of internal hemorrhage due to rupture or to tubal abortion are as follows:

PAIN.—This is severe and is located in

the pelvis and lower abdomen, generally to one or the other side, and is increased by respiration. It is sudden in its onset and cramp-like in its nature. Recurrent attacks of pain prior to the time of rupture have not infrequently been recorded. The pain may partially be due to tubal contractions—tubal labor pains—but it is largely due to the irritation produced by the hemorrhage into the peritoneal cavity. This is especially true in those cases showing recurrent attacks, in which a slight hemorrhage takes place through the abdominal ostium into the peritoneal cavity, with pain and immediate shock of varying degree. According to Congdon, in about 6 per cent of the cases of ruptured or aborted tubal pregnancy pain will be absent, a sudden collapse being the primary symptom.

COLLAPSE.—Occurring simultaneously with or immediately subsequent to the attack of pain will ensue a state of marked collapse with cutaneous blanching. Congdon claims that a history of this kind is in itself sufficient to establish a diagnosis of rupture of an extrauterine pregnancy, and is an imperative indication for the immediate performance of an abdominal section. The degree of collapse may vary from a mere sensation of faintness, commonly with nausea and vomiting, to profound shock with unconsciousness. If the hemorrhage has been severe the inevitable air-hunger and sighing respiration will be present.

PALLOR.—The condition of the skin is most typical. The pallor is extreme; the cutaneous surface is cold and clammy, and the finger-tips are mildly cyanotic. So characteristic is this appearance that it has been termed by Sudranski and others "the marble skin." This excessive pallor is very valuable in differentiating the condition from an acute appendicitis or rupture of a hollow viscus, in which conditions the pallor is not marked nor the pains so low in the pelvis.

FACIAL EXPRESSION.—I cannot emphasize too strongly the expression of the patient in those cases in which conscious-

ness is not lost. It is the same as that which is seen in gangrenous appendicitis, in general peritonitis or in rupture of a hollow viscus. It is known as the "peritoneal face" (*facies abdominalis*), and is characterized by intense anxiety of expression, exaggeration of the facial lines and pinching of the nose. Upon the strength of the "peritoneal face" alone I have operated in gangrenous appendicitis and colonic rupture, in the absence of all other signs.

PULSE.—This is soft, compressible, very rapid, and at times almost imperceptible. After excessive hemorrhage there may be a total absence of the wrist-pulse, although the facial pulsation can generally be detected. The earlier the patient is seen after the rupture the less the rapidity of the pulse-rate.

TEMPERATURE.—At first there is no change of temperature unless the shock is immediate and profound, when the temperature will be found to be subnormal. It is rare for an elevation of temperature to occur, and then only late after arrest of the hemorrhage and with the onset of peritoneal irritation. The patients, however, if conscious, invariably complain of great thirst.

ABDOMEN.—The abdomen is always tender to the touch and is generally more or less distended and tympanitic. Palpation of the posterior vaginal cul-de-sac will detect a bulging which is progressively increasing *pari passu* with the accumulation of blood in Douglas's pouch. Only after clotting has occurred will a palpable mass be detected in the cul-de-sac. This may be noted as early as 24 hours after the rupture, or not for two or three weeks. An interesting sign, which is claimed by Congdon as absolutely diagnostic of ruptured ectopic pregnancy, and which I have noted in many of my cases, is a bodily floating of the uterus upward and forward by the exuded blood so that the examining finger must pass around the symphysis in order to find the cervix. This sign is present only after considerable hemorrhage has occurred. It is frequently accompanied by the peculiar "collar" sensation described

by Davies-Colley, in which the blood collected in the cul-de-sac around the rectum surrounds the latter like a collar. This is absolutely diagnostic of rupture.

UTERINE HEMORRHAGE AND DECIDUAL CAST.—Not in every instance will hemorrhage from the uterus, through the vagina be noted. Congdon states that it is absent in about 6 per cent of the cases. It usually appears, however, within 24 or 48 hours after the initial pain; but, as Stark has indicated, a suspicious feature is that "the accompanying faintness and pallor are out of all proportion to the quantity of blood lost per vaginam." Usually there is but a slight show of dark clotted blood. A good axiom to bear in mind in this respect is that "the greater the abdominal hemorrhage the longer will the lessened blood-pressure delay the appearance of the uterine flow."

The discharge of a decidual cast at or subsequent to the time of rupture is by no means a constant and pathognomonic symptom, as we have been led to believe. According to Mackenzie only about 38 per cent of the women expel decidual tissue. If there is a separation of the uterine portion of the decidua, this generally occurs about the tenth day after rupture (Davies-Colley)—much too late to be of any assistance in diagnosing an acute case. In this connection it is interesting to note briefly the decidual reaction in ectopic pregnancy. Contrary to the popular idea, as Caturani has definitely established, "the receptivity for imbedding the ovum in tube and uterus is identical"; that is, a true decidua forms in the tube as well as in the uterine cavity; and what is still more suggestive, "the earlier the age of the ectopic ovum the more reliable the data (microscopic) as compared with those offered by early uterine ova." This positively settles the question of decidual reaction in ectopic pregnancy. Not only will a tubal gestation-sac show, under the microscope, the presence of chorionic villi, but there will also be found true decidual tissue there as well, in addition to that which will form in the uterine cavity. These elements, if found

in a tubal mass, will afford, of course, proof positive of the existence of an ectopic pregnancy in the absence of an embryo.

THE PREPERFORATIVE DIAGNOSIS OF ECTOPIC PREGNANCY.

I have dwelt thus fully upon the early diagnosis of ruptured ectopic pregnancy because of the urgency of the condition and because it is so frequently overlooked until it is too late to institute proper treatment. While it is also very important that a diagnosis of ectopic gestation be made early before rupture has occurred in order to avert the terrible risk the patient runs when the sac yields, it is by no means a simple matter to do so. It is noteworthy to recall that Lawson Tait, as late as 1889, declared that "he doubted whether a case of extrauterine pregnancy had ever been diagnosed previous to rupture." Surgical knowledge has grown wonderfully since 1889; and while Huggins' belief that, providing the physicians could see the patients early in the development, a diagnosis could be made previous to the final rupture and collapse in at least 80 per cent of the cases, may be over-optimistic, it is undoubtedly true that careful attention to certain details would clear away the obscurity in many instances and transform the cases into simple abdominal sections. To Bandler, of New York, belongs the credit of the earliest recorded case of ectopic pregnancy—an ovum probably ten days old, embedded in the tubal mucosa—diagnosed, in a woman married two months, by severe cramp-like pains in the left ovarian region occurring for a few days after her last menstruation, the tube being removed by abdominal section.

I have endeavored to group briefly the data upon which one may rely in attempting the early preperforative diagnosis of tubal pregnancy, and to arrange them in the order of their relative importance, in the light of the recent clinical experience of abdominal surgeons.

SYMPTOMS OF EARLY UNRUPTURED ECTOPIC PREGNANCY.

PAIN.—Normal pregnancy is painless. Mackenzie states that in only 4 per cent

of ectopic cases is thus true. Pain, therefore, is a very prominent symptom. It is sudden and acute in its onset; is located in the affected tube; is distinct but rarely very severe prior to rupture (Zinke); and the attacks soon pass off. It is generally sickening in character, and it is usually the one symptom which induces the patient to visit her physician. The tubal cramps result from an attempt on the part of the tube to expel the ovum or the blood which has exuded into its caliber. Considerable blood may escape through the fimbriated extremity in this way, causing slight localized peritonitic attacks with resultant adhesions. The history of colicky attacks may cover several weeks before the final rupture of the sac.

MENSTRUAL HISTORY.—There may be no abnormal menstrual history. Amenorrhea is not a necessary symptom of tubal pregnancy. On the other hand, one period may be missed or only postponed for a few days or a week. Such a record is especially significant in the presence of a history of previous menstrual regularity. As Huggins remarks: "A vaginal flow beginning from four or five days to three weeks after the regular time, with periodic pains in the hypogastrium or on either side," should excite the suspicion of the existence of an extrauterine pregnancy. The vaginal show, if present, is atypical. Instead of the usual menstrual discharge there is an escape of a dark-colored blood, at times coagulated, again merely a sanguinolent leucorrhœa, and at other times a true hemorrhage. The bleeding is probably due to a partial detachment of the uterine decidua or to an expulsion of blood from the uterine orifice of the tube, and once begun it is more or less continuous to the time of rupture.

THE PRESENCE OF A PELVIC MASS.—If, in the presence of a history such as this, a vaginal exploration shows an exquisitely sensitive mass lying in close juxtaposition to the uterus, a strongly presumptive diagnosis of the condition may be made. The enlarged tube can readily be palpated bimanually in most cases, unless the abdom-

inal wall is very rigid or unduly thick. Such a tumor is unilateral, in distinction from inflammatory and purulent affections of the tubes, and while partially fixed it is not firmly adherent, presenting a board-like rigidity, as in the case of a pus-tube. It can be readily felt through the vaginal vault, and is commonly the seat of distinct arterial pulsation—another feature which is generally absent from inflammatory conditions of the tube.

UTERINE ENLARGEMENT.—Increase in the size of the uterine body, particularly if the patient has never been pregnant before, is strongly suggestive. This enlargement is not as great as in a normal pregnancy of the same duration. The uterus is generally slightly displaced to the opposite and anteriorly, and shares with the cervix in a moderate degree of softening. Traction upon the cervix by means of a tenaculum produces great pain, and this sign is regarded by Huggins as especially significant and almost diagnostic.

TEMPERATURE AND BLOOD COUNT.—There is invariably a normal temperature in an uncomplicated ectopic pregnancy. Any elevation of temperature would favor the presumptive diagnosis of an inflammatory condition of the tube. Also, a normal blood-count and an absence of leukocytosis would be expected in the pregnancy as distinguished from a salpingitis.

THE PREVIOUS HISTORY OF THE PATIENT.—As many cases of ectopic pregnancy occur immediately or shortly after marriage, too much reliance cannot be placed upon the question of sterility. If, however, the patient has given birth to a child years before, and this birth has been followed by a prolonged period of sterility, such a history is significant, particularly if there is a record of an inflammatory pelvic attack occurring subsequent to the birth of a child. Congdon, however, believes that the abnormal pregnancy is more apt to occur in a perfectly healthy woman than in one who has been diseased, and claims that his records show this to be true. In this connection, and substantiating Cong-

don's statement, it is well to bear in mind that old salpingitic conditions are generally associated with menorrhagia and metrorrhagia rather than with amenorrhea. Mackenzie, in 155 cases of ectopic pregnancy, found that only 16 per cent had suffered from previous pelvic trouble. It is but fair to add that Opitz examined microscopically several sections of that part of the tube between the gestation-sac and the uterus in 23 cases, and found evidences of old salpingitis in all of them. So you may take your choice, in the absence of more conclusive evidence. Personally, I am inclined to favor the pre-existence of tubal infection or of tubal malformation in all cases of tubal pregnancy.

THE GENERAL SIGNS OF PREGNANCY.—These cannot be relied upon. The common observation has been that in most cases there have been no typical signs of pregnancy such as are set down in the textbooks.

ABDERHALDEN'S TEST.—Abderhalden states that his test is valuable in ectopic as in normal pregnancy. Partos, of Professor Buettner's clinic in Geneva, quoted by Aubert, claims positive results of this test in about 66 per cent of the cases of ectopic pregnancy in which it was tried; and A. A. Law, of Minneapolis, while discussing Mussey's paper on ectopic pregnancy, remarked that Abderhalden's test has been proven to be positive within four or five days after conception and in general is conceded to be efficient in the beginning of the second month. He further concludes that "in extrauterine pregnancy we would expect the reaction earlier than in normal pregnancy, as the tube has a richer lymphatic supply and the fetus is not so definitely confined." Although the test has been reported as positive in certain cases of pyosalpinx, this was probably due to some error in the technic of the testing. Wightman, of Omaha, was the first in obstetrical literature to report a case of tubal pregnancy in which Abderhalden's test was a valuable adjunct in the diagnosis of the case, ninhydrin being

used as the reagent. This showed the peptonic reaction after fourteen hours' incubation, and abdominal section done five days later revealed an unruptured tubo-ovarian pregnancy. J. B. Murphy reports the second case in which the test was positive, and the operative findings showed an unruptured right tubal pregnancy. It is too early to form any positive deductions in this matter, but in all probability in Abderhalden's test we have the most important, and it may be the only positive, method of preperforative diagnosis of ectopic gestation.

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Readers of the Journal should look over the advertising columns when in need of anything not to be had at home. When requiring anything in the way of tissue examinations, bacteriologic examinations, blood work, Wassermann, etc., send your specimen to one of the laboratories advertised in the Journal.

The Toxemia of Pregnancy with Report of Two Recent Cases.

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Read before Kansas Medical Society, Kansas City, Kan., May, 1915.

The toxemia of pregnancy as far as our knowledge goes at the present time is a disturbance of metabolism occurring in the pregnant woman and dependant upon the condition of pregnancy and due to a certain extent to faulty elimination. The literature on the subject is somewhat confusing, due to the different classifications used by the different writers. There is also quite a difference of opinion as to etiology, symptomatology and treatment. Thus we find that Dr. Lee believes that hyperemesis, acute yellow atrophy of the liver, the condition known as the pre-eclamptic state, and eclampsia are but different stages of the same condition and should be grouped together under the head of "Toxemia of Pregnancy." While Williams believes that they are separate entities and should be so studied, but all depending upon that underlying disturbance of metabolism of which we know so little. Yet we find much in common in pernicious vomiting and eclampsia, both occur in pregnant women and depend upon that condition, both usually recover when the uterus is emptied and elimination is re-established, unless too much damage has been done to important organs, and both are accompanied by grave, renal and hepatic changes. Many writers use "Toxemia of Pregnancy" and "Eclampsia" as synonymous terms, and it would seem, as near as I can reconcile the literature that I have read, that pernicious vomiting when it is finished is eclampsia.

Dr. Lee says that eclampsia can only occur in an organism long prepared for it by a disturbance in metabolism with lessened or improper elimination. That is to say that there is a preeclamptic toxemia of considerable duration which if properly understood and actively treated would in a large majority of cases prevent the convulsion. Hence, we conclude that hyperemesis, albuminuria and convul-

sions are symptoms of the same condition, a profound toxemia dependant upon the condition of pregnancy.

ETIOLOGY.—The literature is voluminous and opinions various as to the cause of this malady and authorities differ as to which organ or organs are at fault. Tweedy holds that eclampsia is due to an increased metabolism with decreased elimination due to the demands of the growing foetus within the uterus. Many experimenters believe that the placenta generates a toxin which is poisonous to the woman and have carried out experiments that seem to prove their contention. The Italians originated the theory that eclampsia was caused by some internal secretion.

If there is a toxin in the blood of pregnant women, then it is the function of some organ in the body to combat it. The thyroid gland has been demonstrated as taking part in the protection of the woman from metabolic changes. This seemed proven in an experiment in which thyroidectomy was performed upon fourteen pregnant bitches, which was followed by eclampsia in thirteen and the fourteenth was found later not to be pregnant. It is also a well known fact that there is an hypertrophy of the thyroid in pregnant women and Mayo says: "If you cannot easily palpate the thyroid by the seventh month of pregnancy, look out for eclampsia." The parathyroids seem to bear the same relationship to tetanus that the thyroid does to eclampsia. Much work has been done to determine the relation of the hypophysis to the oxemia of pregnancy, but nothing of definite clinical importance has been worked out.

FREQUENCY.—In 93,000 reported cases, eclampsia occurred 920 times, or practically 1 per cent of all lying-in patients.

This percentage is probably much too high, as they are hospital records and doubtless many of the patients were in the hospital on account of the convulsions. This is proven by Leightenstein's investigations in which 6 per cent of all cases had eclampsia and only .15 per cent, or 1 in 600, developed the convulsions after

having been admitted to the hospital.

CLINICAL HISTORY.—Eclampsia usually does not develop before the fifth month of pregnancy, although cases have been reported as early as the third month, and they become more and more frequent as the end of gestation approaches. From 60 per cent to 80 per cent occur during the first pregnancy, multiple pregnancies and hydramnios act as predisposing factors. Occasionally an eclamptic convulsion occurs in a patient who is apparently in perfect health or in one who has seemingly recovered from the preeclamptic toxemia, but these are exceptions, for there is usually the premonitory symptoms of severe toxemia, as lassitude, general malaise, headache, presternal pain, œdema of legs, and sometimes of hands and face, disturbances of vision, variable appetite, constipation, albuminuria, etc., not all of these symptoms are found in one patient, but part of them almost always.

Eclampsia occurs most often in patients who live in the slum districts amid poverty and unhygienic surroundings, with improper food, poor ventilation and when elimination is not properly carried out, but it may occur in neglected cases among the well-to-do. In many of these cases the physician is not consulted until some symptoms of the pre-eclamptic state or the convulsion itself forces the patient to seek medical aid.

Whether or not the patient has convulsions depends, according to Dr. Lee, upon the susceptibility of the nervous system. He says "Eclampsia with convulsions is that familiar overwhelming of the nervous system, accompanied by epileptiform seizures. Eclampsia without convulsions is seen in fulminant toxemia with intense headache, substernal pains, epigastric distress, violent emesis, and disturbed cerebrum." The two conditions being practically the same with the exception that in one there is convulsions and in the other there is not, depending upon the susceptibility of the patient and not upon the disease for their presence or absence.

DIAGNOSIS.—An examination of the urine

alone is not sufficient to warrant a diagnosis of toxemia or threatened eclampsia. The state of the nervous system must be taken into consideration. In these conditions we usually find some, and often nearly all, of these symptoms, melancholy, neuralgic pains, anorexia, exaggerated reflexes, pernicious vomiting, disturbance of vision, œdema, especially of the limbs and face. The circulation shows as its most important symptom an altered pulse rate. The tension is of two kinds, the heavy, firm, constantly high-tensioned pulse which is readily recognized, and the more dangerous, because not so easily recognized, rapid pulse whose tension is not at first raised but which develops quickly upon slight disturbance. Substernal pain is a symptom of importance, says one writer, and I found it the principal symptom complained of in case No. 1. It is a principle now well established that an increased blood pressure is the first and most constant symptom of toxemia. It appears before the albuminuria and all other signs of impending eclampsia. It is significant that rapidly fatal cases may show no albumin or casts in the urine but all, where it has been taken, have an increase in blood pressure. Blood pressure in pregnant women may range from 116 to 124, higher than 130 shows some degree of toxemia, yet it may run as high as 150 without convulsions, and a blood pressure in eclamptics has been recorded as high as 320. Hirst states that a blood pressure below 125 may be disregarded; from 125 to 150 needs careful watching and moderate elimination treatment, above 150, if it is inclined to go higher, requires the induction of premature labor.

PROGNOSIS.—It seems that the sooner after the first convulsion that the uterus is emptied the better the prognosis, but this will not always hold good, as the conditions of the birth canal and the amount of traumatism necessary to immediate delivery must be considered and sometimes the conservative method is best and often whichever method we take in a case we wish we had taken the other. But it re-

mains that the sooner the delivery can be accomplished without too much shock and traumatism, the better the prognosis for both mother and child.

W. F. Shaw in the *British Medical Journal* calls attention to three unfavorable signs in eclamptic patients: 1, a small amount of albumin in the urine during the eclamptic stage, and cites some statistics in proof; 2, a higher temperature during the attack, in his cases reported those with a temperature above 100, 26 in number, 15 or 57.7 per cent died, and out of 19 with a temperature below only 1, or 5.2 per cent, died, the higher the temperature the more unfavorable the prognosis; 3, convulsions occurring after labor, in only 8 in a series of 46 cases did the convulsions occur first after labor, and only one of these women recovered. There is a wide variance in the mortality reports which range from 12 to 50 per cent depending upon the observer, probably a mortality of 25 per cent to 35 per cent is about right.

TREATMENT.—The treatment as given by the various clinicians is also confusing, as almost every potent, seductive drug has been used and has its advocates. The difference of opinion is chiefly upon the methods of controlling the convulsion, but most writers are agreed that the keynote of treatment as well as the prevention of toxemia and subsequent convulsions is elimination with absolute rest and a milk diet. Hirst says that the mortality can be reduced below 10 per cent by this treatment: 1, lavage of stomach and colon, castor oil or croton oil by stomach tube and later by Epsom salts by the mouth if the patient can swallow, sweat pack for 30 minutes out of each four hours; 2, hypodermoclysis after the first sweat a quart is injected under the breasts, later a quart is injected into the colon; 3, venesection, if the blood pressure is above 180 a pint of blood being withdrawn; 4, fifteen drops of fl. extract of verat. Veride hypodermically, then 1/100 gr. nitroglycerine every four hours, chloral or chloroform may be given but he considers them unimportant. Nothing is done towards emptying the

uterus save puncturing the membranes. He states that after elimination is fully established and the membranes ruptured an easy delivery is the rule within eight hours.

The Stroganoff treatment of eclampsia and his almost wonderful results in a series of over 400 cases with a maternal mortality of only 6.6 per cent and a foetal mortality of 21.6 per cent, has attracted world-wide attention, but it must be followed in the minutest detail in order to secure these results. Immediately upon admission the eclamptic patient is given a $\frac{1}{4}$ gr. morph. hypo, and examined under chloroform anesthesia. If the conditions are favorable for immediate delivery this is done at once, otherwise the patient is placed in an isolated dark room away from all irritating noises, and only the physician and nurse are allowed to enter the room. All manipulations, as enema, catheterization or hypodermic injections, are done under light chloroform narcosis. After this the patient is kept thoroughly narcotized by means of morphine and chloral until after delivery three or four days, as soon as it can be done without too much force the child is delivered by version or forceps.

Other methods of treatment as decapsulating the kidney, cesarean section, etc., are only important in showing to what desperate straits we are sometimes driven by this terrible malady, and that in spite of our most persistent efforts our patients become worse and worse and die before our eyes.

Upon a few things all are agreed:

1, The convulsions must be controlled if possible by the drugs and methods that the attendant physician thinks best suited to his individual patient.

2, Empty the uterus as soon as it can be done without too much traumatism and shock to the patient. About when this time is there is considerable difference of opinion.

3, Prompt and energetic eliminative treatment by way of kidneys, bowels and skin.

4, Perfect quiet and careful nursing for the patient with the watchful meeting of any complications that may arise during the course of the disease.

Case 1. Mrs. W. Primipara, age 23, very fat, weighing over 200 pounds. History of abortion two years ago, cause unknown. She was treated in a hospital in Illinois. Was first called to see her on January 9, '15, on account of the dropsy as the husband stated. Found her about eight months pregnant, very edematous over entire body, face puffed, legs very much swollen and hard and tender, edematous ridge across abdomen larger than my own hand, complained of severe headache, blurred vision, constipated bowel, shortness of breath, anorexia and insomnia, found urine practically normal in amount and sp. gr., but loaded with albumen. Very irregular pulse, skipping every third to fifth beat, and considerable nausea and vomiting.

Diagnosis: Toxemia of Pregnancy in the pre-eclamptic stage.

Prognosis: Very unfavorable.

Treatment: Put patient to bed in recumbent posture on an absolute milk diet, plenty of water, saline laxative each morning (Epsom salts), gave pot. acetat gr. $7\frac{1}{2}$; infusion digitalis, drams 2, every four hours.

Under this treatment edema practically disappeared, pulse improved, appetite returned, headache left her and she seemed very much improved generally, but the urinary findings did not improve.

Twice there was irritating cough with blood-tinged expectorations caused I thought by pulmonary congestion from weak cardiac impulse. These both improved under increased doses of digitalis.

On February 2, labor came on about 3 a.m. and progressed very satisfactorily to complete dilatation when on account of patient's condition I decided to deliver with forceps, which was done under light chloroform anæsthesia and a medium sized female child was delivered without serious difficulty—some perineal tear, which was sutured. Patient rallied nicely and her

condition seemed to improve for about 24 hours, when she showed signs of coma, with very light convulsive seizures. She was moved to Bethany Hospital, February 4, where she developed a high fever, 105, the coma deepened, and she died at 8:30 a.m. February 6, almost exactly four days after delivery.

Case 2. (Referred by Dr. Dugary, of Kansas City, Mo.) Mrs. R. Premipara, age 17 years, history of abortion 18 months before, cause unknown.

During the latter part of December, '14, Dr. Dugary and I went over the symptoms in this case without my seeing her and we made the diagnosis of toxemia of pregnancy in the preeclamptic stage and ordered diet, treatment, etc. Whether our directions were carried out or not, we had no way of knowing, as she was from the ignorant, north-end class of Kansas City, Mo., but we do know that about 3 p.m. January 7, 1915, she suddenly went into a convulsion and that she had two more before I saw her about 6:30 p.m. We found her very edematous all over body, legs, face, abdomen, etc., with no indications of labor.

After the third convulsion we moved her to Bethany Hospital. She had another on the way to the hospital and two after she was admitted, making six in all. We reduced the blood pressure and pulse with verat. viride, m. xv per hypo. and quieted the nervous condition by means of chloral hydrate, gr. xxv per rectum. On examination I found slight dilatation and her action indicated that she was having some abdominal pain so I decided to pack the vagina firmly and wait.

The next morning I completed dilatation quite easily, ruptured the membranes and delivered a living female child with forceps. After allowing her to bleed quite freely she was returned to bed in a fairly good condition. She was in a semi-comatose condition and would do what she was told and drink anything we gave her. So she was given calomel gr. 1 every hour for five doses followed by sat. sol. of cit. mag. oz. 2 every hour until free catharsis. This

soon began to act and as there was no vomiting we gave her oz. 8 of water every hour and every fourth hour milk instead. Kept the pulse below a hundred with *verat. virid.* Gave *pot. acetate* and infusion of *digitalis* in quite large doses. She had slight rise of temperature afterwards and the lochia was quite profuse but no more convulsions. She lay in a comatose state for five days when she gradually came to herself and for the first time realized that she was not at home.

From this on she improved quite rapidly; the edema disappeared; the urine improved, but did not entirely clear up; her appetite returned; the breasts filled up and she was able to nurse her baby. The headache and nervous symptoms improved and she left the hospital on the fifteenth day with her baby. When last I heard from her, about five weeks after delivery, she was still doing well, nursing her baby and able to go to the nickel show, little realizing or appreciating what she had been through on the days of unceasing work and care spent by the nurses and doctors to save her life.

—R—

Some Practical and Economical Features Facing the Medical Man.

W. G. NORMAN, M.D., CHERRYVALE, KAN.

Read before Kansas Medical Society, Kansas City, Kan., May, 1915.

The fact that there are a number of practical and economical questions that need airing, and that these questions are to become more and more important as the trend of medical thought and practice advances, has impelled me to attempt their discussion at this time.

In the industrial world efficiency and economy result only when every man has his special work to do and that work only; and the large institutions of industry are driving out of existence those individual workmen who manufactured the whole of an article of commerce, as the old fashioned shoemaker or the tailor, etc.

Modern industrial affairs are becoming too complicated and competition too keen for one individual to successfully perform

all the work connected with the manufacture and marketing of any article of commerce. And so the trend is in the practice of medicine. The specialist is abroad in the land. There are only a few men left, whose intellects are so ponderous, whose minds are so broad, and whose skill is so great that they are capable of doing anything and everything connected with the practice of medicine and surgery, as well as the experts in each line do it.

I am here today to plead the case of the family physician and to advocate some plans by which he may be materially benefited, but in doing so I do not wish to detract one particle from the glory and renown of the specialist, to whom is due the most of the credit for the great advancement in the medical sciences in the past generation.

It is pertinent at this time to mention some of the problems we as family physicians face, especially those who like myself work mainly among the poorer or less opulent classes, and I am persuaded that by far the most of the sickness occurs among those who can least afford to be sick.

How many times we are called to care for patients suffering from pneumonia, typhoid, tuberculosis, rheumatism, erysipelas, the acute exanthemata; to attend maternity cases; to fix fractures, simple and compound; to care for a great variety of surgical cases, and all kinds of medical cases among those whose surroundings are the most unsanitary imaginable, whose material welfare is of the lowest sort, for whom it is impossible to obtain trained or competent nursing. Still the doctor is expected to bring the patient through all safe and sound, and if he fails he is censured because perhaps he did not do just exactly the things that were recommended by the authorities; although nine out of ten, or at least the larger proportion of recommendations for treatment of any given case mentioned by the book authorities, contemplate having competent or trained nursing. But notwithstanding these facts concerning the cases among this class

of patients, who cannot afford trained nursing, proper feeding, efficient care nor the advantages of expert consultation, it is wonderful that such a large proportion get well. In fact our percentage of mortality in pneumonia or typhoid, for instance, among the classes of people mentioned, compare favorably with that of most hospitals where patients have every advantage, and the percentage of maternal mortality in obstetric work is no greater than in a well regulated maternity hospital, notwithstanding the fact that the family physician will probably be in attendance on cases of abscess, erysipelas or scarlet fever or similar infections at the same time.

While we are taught that this is not as it should be, yet the strenuousness of competition and the necessities that require the physician to retain the business of his regular family patrons, compel him to assume the risks, and it certainly speaks well for the capabilities of the family doctor that under such unfavorable circumstances he is so uniformly successful.

With all due respect to the specialist, the fact remains that the great majority of wage workers and those in moderate circumstances, who are not objects of charity, find it necessary to depend on the moderate priced general practitioner to treat themselves and families through all manner of sickness and injuries because of the prohibitory prices the specialist charges. It occurs to me then that a discussion of plans by which many of these disadvantages might be overcome would be profitable.

In the cities and larger centers that are supplied with an abundance of hospital and dispensary privileges, where even the very poor are provided for, there is usually a sort of division of work so that every one, whether rich or poor, may receive the attention or the advantage of the opinion of skilled and experienced specialists in every branch of medicine. In most communities in a state like Kansas there are at least three or more reputable physicians who might enter into some sort

of arrangement whereby the more usual special work of the community could be divided among themselves, each one fitting himself to do special work in certain departments different from the others, so that in a case where special skill was required, that case could be referred to the physician who has fitted himself to do superior work along that line.

At present there are so many unfair doctors, and petty jealousies are so rife, and the medical work is divided among such keen competitors instead of fraternizing colleagues, that it is a rare community indeed where co-operation of this sort could be attempted, unless there be a complete reorganization of the medical forces on a very different basis. In many communities this antagonism is so great that rival hospitals are established where the community can hardly support one, and the result is that both are failures.

I recently asked a number of questions of the doctors of my county, pertaining to the practical side of the practice of medicine, and while from the nature of the questions it is impossible to get exact data, yet they give us some interesting things to think about. For instance: the average from the answers received shows that only about 11 per cent of all patients, including those in hospitals, receive trained nursing. Some of these answers evidently intended to include only those who received the care of trained nurses in the home, while the others included all hospital patients. There are about 13 per cent who receive hospital care, but there are 22 per cent of patients who need trained nursing who neither get it in the home nor the hospital, showing that there is still a great need for some arrangement whereby that 22 per cent of all cases could have either more efficient nursing or hospital care.

So far as the cost to the patient is concerned there is not much choice between the hospital and the home under the care of a trained nurse, but the opinion is about two to one that the average medical patient receives better care in the hospital than he does in the home. The opinion

is unanimous of course that surgical cases should be cared for in the hospital where it is possible. The surgeon, therefore, has the advantage over the medical practitioner, and an immense advantage over the country family physician, in that he may command the use of efficient help and has the cheerful assent of the public generally to the necessity for hospital facilities in surgical treatments, while the medical man has to *persuade* his patients that the hospital is the best place to care for them. The country practitioner who has no hospital facilities in his community is compelled to treat his patients at their homes, and mostly without the aid of efficient nursing or else let his business get away from him.

Now with the great advances being made in the art and science of prevention of disease; the inroads being made on the general practitioners' business by the city specialist and the neighboring physician or surgeon who perhaps has better facilities (and who is always more efficient than the local doctor); with many of his "most intelligent" (?) patrons going off after itinerant or advertising quacks, cults, isms, or pathists, with laws regulating sanitary and public health conditions becoming more and more stringent and effective, with such a large per cent. of his work (fully 40 per cent. according to the figures I obtained from my colleagues in the county) either free advice, gratuitous treatments, or charity work; and with the expenses of maintenance of practice and of living increasing as it is; and with many other conditions peculiar to each community entering into the matter for consideration, it may soon become necessary for a large number of good, honest, reliable and efficient practitioners, either to engage in some other business for a livelihood and practice medicine for the good of humanity, or else make some radical change in the general system of practice whereby his rights may be maintained, his business retained, and his position and worth sustained by the community in which he resides.

The physician who does not have the ad-

vantage of a hospital for the care of his patients, and the assistance of an efficient staff in making quick and certain diagnoses, nor the privilege of brushing up against other congenial colleagues and discussing means and methods of professional work with them, is laboring under a marked disadvantage. So for these and various other reasons I would advocate that every community should have a hospital of its own, even though it be small. A hospital moreover being an institution with an organization formed for the purpose of securing better treatment for the sick and injured of a community, might serve as the nucleus of a greater organization that aims at the control of diseases, the prevention of sickness, and the promotion of efforts for the betterment of the general health of the community.

According to Dr. Cabot of Boston, "A hospital represents organized medicine while a private practitioner represents disorganized medicine." Again he says very truly, "That as the medical services available for the public are now arranged, any 'Down-and-out' can get the best possible medical advice and treatment by going to a hospital. That the rich can get excellent advice and treatment by paying high prices to first class specialists, but that the great mass of people, who are just comfortably well off, get the poorest medical service because they will not go to the public hospital and cannot afford to consult the best men privately."

Further he says, "that under our present system, the best work is done in the hospital free of charge, by men who *are not paid for their work*, and that the worst medical work is done by private practitioners at good pay." To emphasize this he cites his own case, a hospital physician for twenty years giving one-half his time to the Massachusetts General Hospital absolutely free as do all the 150 doctors connected with that institution. He says that the general welfare of his own private patients would be better if, instead of asking him for treatment or to send him to a specialist, he allowed the doctor to send

him to a hospital, for the reason that there a correct diagnosis could be more speedily and accurately made, because he then has the advantages and resources of the hospital staff.

A physician who is connected with a hospital equipped with laboratories and all manner of costly instruments of precision with a staff of specially trained observers and helpers finds it easy to obtain, in a very short time, a full report on the condition of his patient's heart, lungs, kidneys, eyes, blood, stomach, the various secretions, etc., which in the majority of cases reveals the exact nature of the trouble, when proper treatment can be readily applied.

The private practitioner treating his patients in their homes has to rely on his own individual skill in diagnosis, and must become expert not only in the examination of each organ, but also in the technique of various laboratory demonstrations as well as in the use of the many special appliances and mechanisms used by the different specialists, in making diagnoses, a degree of expertness to which very few of us have the time and ability to reach. In the more obvious and simple cases expert examination is not usually needed, but how often we private practitioners come across cases that keep us guessing, not because they are hard to treat, but because we cannot find out what is the matter with them and the patient cannot afford the services of a number of specialists.

The practice of medicine is becoming more and more the art and science of the prevention of disease, and the preservation of health. I find that about four-fifths of the physicians would rather devote their talents to the prevention of sickness than to treating the sick, but in the present chaotic state of organization they are very inadequately paid for what they do in the way of prevention. I find that the estimates of the doctors on the percentage of their cases of sickness that they might have prevented, had the patients been free to ask and accurate in following their advice, averages about 40 per cent. of all cases of sickness.

The surgical diseases are now, according to some eminent surgeons, at their zenith numerically and must soon begin to decrease, as the result of the preventive measures that must be taken. We are all aware that a very large per cent. of the surgical cases come from, or as a result of, those diseases that are absolutely preventable as for example the venereal diseases. Tubercular diseases are many times preventable and the methods of prevention are perfectly well known though in many instances not so easily applied. Diseases dependent on bad teeth, improper feeding, unsanitary surroundings, poor hygienic conditions, contagions, intemperance in matters of diet, drink, and habits, etc., that produce premature degenerations; ignorance on the part of the laity, lack of proper medical and sanitary inspection, and many other conditions and circumstances too numerous to mention; all these conditions, causing or permitting medical and surgical diseases that might be prevented, may reach as much as 50 to 75 per cent. of all sickness. When the medical and sanitary practitioners and the specialists in all the departments of preventive medicine get down to work in real earnest the private physician, the surgeon and the different specialists in the treatment of diseases, will become aware of a material reduction in the volume of their business and consequently in their cash receipts unless they join the class of prevention specialists and reorganize their practice or business in a way that will enable them to receive their pay for their services in preventing sickness instead of for the treatment of diseased conditions.

I find from the answers to my questions that the physicians are practically unanimous in favor of more stringent municipal and governmental regulations in matters of public health, if by that means the amount of sickness be reduced even though it materially lessened their income, so the professional man cannot be accused of mercenary motives in the conduct of his business, for it is a well known fact that the doctor's chief aim and endeavor is, by

every legitimate means at his command, to beat himself out of a job. I must say, however, he doesn't always have the cooperation of the general public, the honorable lawmakers and the powers that be in this rather laudable ambition.

Quoting Dr. Cabot again: "As the practice of medicine is at present organized, it is a fact that the medical man makes his living out of people being ill, and that every treatment which he prescribes with successful results, every counsel of hygienic wisdom which he gives and which the patient follows reduces his income."

With so many preventable diseases and conditions causing sickness, deformities and defects that are such potent factors in the impoverishment of the people; that so continually are cutting down men and women in their prime; that are extinguishing the lives of so many little ones during their early years; that are causing so large a proportion of our youth, both male and female, to enter the activities of life under a dreadful handicap of disease, deformity, and depravity; the people have a right to demand of us why, in the name of all that is good, we don't get busy and eradicate those diseases and the conditions causing them.

The answer is, in part at least, that we, under the present arrangement of things, are not paid for preventing sickness. We already have done much in the way of prevention. The way has been made plain in many cases. Investigations and discoveries have been made and are being made that have revolutionized the methods of dealing with many diseases; yet the field of prevention is opening up to an extent that few have hardly dreamed and less have fully contemplated.

Is there a remedy for the present unorganized or disorganized state of the profession in respect to this phase of medicine? There must be. There surely is. It is not to be found in the dividing up of communities into districts over which is placed a physician, whose duty it is to treat the sick, stamp out disease and prevent the spread of contagions within his

district, etc., at a stated salary like a government official, for the professional men unanimously object to being limited to a fixed salary.

It would remedy matters much to so arrange things that the interests of the physician and the interests of the patient ran in the same or in parallel lines, instead of as at present when we make our living and our fortune out of the misfortunes of our friends and neighbors.

If a doctor would organize a group of people who would pay him a fixed fee each year to keep them well by frequent examinations, advice, instructions, educational methods, etc., thus linking up his livelihood with the preservation of health instead of the cure of diseases, what an inducement there would be to disseminate knowledge, to eradicate all the causes of disease and infections. And if this method would become general, what a stimulus we would have for the instruction of the people as to the laws of health, the methods of its preservation, etc., for then disease, dirt, insanitation, physical, mental and moral deformities and degenerations, and those things and conditions that produce them, would be our avowed enemies to be hunted and fought until they be entirely destroyed—not the left-handed friends from whose ravages we make our living. How quickly then would a public sentiment in favor of the preservation of health and the prevention of sickness be engendered, which would crystallize in the form of wholesome laws, pure foods, clean lives, a better manhood and womanhood, and the development of a stronger and sturdier race of human beings than this world has ever seen. So may it be.

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If there is any article in a woman's dress about which the doctor should be consulted it is the corset. Misfitted and improperly shaped corsets are likely to cause various difficulties. Read the advertisement of the Nemo Corset.

Epidemic Influenza in Children, with Special Reference to Gastro-Intes- tinal Complications.

DR. F. H. SMITH, Goodland, Kansas.

Read before Kansas Medical Society, Kansas City, Kan.,
May, 1915.

Gastro-intestinal symptoms were not formerly regarded as a part of the Clinical Picture of influenza. The earlier writers regarded influenza only as an infectious catarrh of the upper air passages. Now the digestive apparatus plays an important part in young children and infants, and in many cases the whole course of the disease may simulate an acute febrile gastro-intestinal catarrh. We find vomiting and diarrhoea as prodromal symptoms. The younger the patient, the more severe the symptoms as a rule. I have noted in several cases pronounced meningeal symptoms. This is particularly true in cases in which the gastro-intestinal symptoms were unusually severe and prolonged. In one of my fatal cases a child of eighteen months, severe and repeated convulsions occurred three days before death. A lumbar puncture was done in this case, and a bacteriological examination of the spinal fluid revealed the presence of the influenza bacillus. During the winter of 1913-1914, and also through the spring and summer of 1914, an epidemic of the gastro-intestinal form of influenza prevailed in Sherman County. Over ninety cases coming under my personal observation. A bacteriological examination in three cases of the bowel discharges resulted in finding the influenza bacillus. Blood was present in about 40 per cent of all these cases. Severe hemorrhage in only three cases. Vomiting, anorexia, and colic pains were prominent symptoms in all cases.

Prostration and emaciation were well marked. The prognosis is generally favorable, as only two deaths occurred in over ninety cases which came under my observation. These two fatal cases occurred in children who had recently recovered from whooping-cough. As there is no specific treatment for influenza, the same is largely symptomatic. The so-called intestinal anti-

septics are worse than useless. I believe I derived some benefit from the administration of the Bulgarian bacillus. I generally began treatment by the administration of repeated minute doses of calomel, followed by castor-oil. Milk of bismuth gave some relief for vomiting and diarrhoea. In the way of nourishment I have found orange juice acceptable to most patients and well retained by the stomach. Milk, not boiled but heated to the boiling point and diluted with equal parts of lime water, has always seemed to relieve gastric irritation and promote the nourishment of the patient.

—R—

NOTES FROM THE MEDICAL SCHOOL

Sugar as a Normal Constituent of Urine.

DR. C. FERDINAND NELSON

Dept. of Biochemistry, University of Kansas.

Physicians have for years debated whether sugar should or should not be considered a normal constituent of urine. It has indeed been known for a long time that traces (less than one-twentieth of 1 per cent) are present in the urine of the normal individual, although the regular, so-called clinical tests, such as Fehling's, Haine's, Benedict's, and Nylander's, have always been found to be negative. Professor Folin of the Harvard Medical School has recently devised a simple test which proves quite conclusively that there is a reducing body in normal urine aside from creatinine, glycuronates and the like; and from all we know concerning the composition of this fluid, this body is a reducing sugar. Professor Folin has obtained positive tests from one hundred medical students and we have recently checked his results in the Biochemical Laboratory here and find them, as he did, to be uniformly positive. The technique of the test is easy and we are describing it here for any who may be interested in trying it out for themselves.

Doctor Folin asserts that the reason that the so-called clinical tests are negative is because the creatinine which is normally present in urine dissolves small

amounts of cuprous oxide and thus renders Fehling's, Haine's and other copper tests negative when only traces of sugar are present. He accordingly first precipitates out the creatinine with picric acid and absorbs most of the creatinine picrate with bone-black or blood charcoal. After this is done, the filtrate is examined with a sensitive copper solution for sugar.

The test is carried out as follows: To 10 cc. of urine add 2 grams of picric acid and 2 grams of good quality bone-black or blood charcoal. Shake for 5 minutes and filter. Add 1 to 2 cc. of the creatinine free filtrate to about 10 cc. of freshly mixed "sugar reagent" in a large test tube with a pebble or two to prevent bumping and boil with constant shaking for about 2 minutes. A typical reduction is at once obtained if the amount present is above the normal variation of sugar, or, if the trace is smaller, the whole solution will become turbid as in Benedict's test. If the boiling mixture remains clear, transfer while hot to a centrifuge tube and centrifuge for a minute or two. A typical red cuprous oxide will be found in the bottom of the centrifuge tube and above it usually a green crystalline precipitate of potassium picrate. The sugar reagent is made up in two solutions and mixed each time before using, since on standing it tends to deteriorate:

Solution (a). 5 grams of crystallized copper sulphate are dissolved in 100 cc. of hot water and to the cooled solution are added 60-70 cc. of pure glycerine.

Solution (b). 125 grams of anhydrous potassium carbonate are dissolved in 400 cc. of water.

Mix one part of solution (a) with two parts of solution (b) and use about 10 cc. of the mixture for each test.

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The Mechanism of Urination.

A. B. Cecil, Los Angeles (Journal A. M. A., Oct. 23, 1915), discusses the data with regard to the physiology of urination, giving the views of a number of the principal authorities and critically discussing them and reporting their experiments. The

question as to whether or not there is an extraspinal center is reviewed and he thinks that the operation of median perineal prostatectomy disregards the physiology of the mechanism of urination, hence the many cases of urinary incontinence that have followed it. The following are his conclusions: "1. The bladder center is situated in the conus terminalis of the spinal cord. 2. The so-called sympathetic centers are incapable of carrying on, in anything like a normal manner, the mechanism of urination. 3. The desire to urinate arises from stimulation of the sensory nerves of the bladder and not from stimulation of the sensory nerves of the posterior urethra. 4. The internal sphincter muscle normally maintains bladder closure. 5. Although the internal sphincter muscle is plain muscle it is to all purposes under volitional control. 6. The external sphincter muscle is capable of maintaining bladder closure and does not have to be educated to perform this task. 7. Either the external or internal sphincter muscle can, if necessary, be destroyed without interfering with the function of retention of urine, providing the remaining muscle is in a normal condition. 8. Medium perineal prostatectomy, inasmuch as in this operation the external sphincter is divided and the internal sphincter muscle is liable to be rendered useless by the prostatic growth, is likely to result in incontinence of urine. Incontinence of urine does not follow Young's perineal prostatectomy, in that in this operation the external sphincter muscle is preserved."

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In a report of a case, in one of our exchanges, we note the following statement: "He was suddenly seized with pain in the right side, constipation, and vomiting."

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Under the new rules adopted by the Topeka Board of Health cases of diphtheria are kept in quarantine until the bacilli can no longer be found in the mouths of the patients.

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W. E. McVEY, M.D. - - - - Editor

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Sickness Insurance.

It is not improbable that in a few years at least, the medical profession will have an opportunity to try out some plan of sickness insurance under federal supervision. There is no argument which so strongly appeals to the American people as one which is expressed in dollars and cents. The Commission on Industrial Relations, appointed by act of Congress in 1912, has recently made a report, and in this report has presented figures that must make some impression upon the commercial world. The Journal of the American Medical Association, in an analysis of the report of this commission, says:

"It is interesting to note that each of the thirty-odd million wage earners in the United States loses an average of nine days a year through sickness, at an average cost of two dollars a day. The wage loss from this source is over five hundred million, while the added cost of medical care of at least \$180,000,000 increases the total sick bill of the wage earners of the United States to \$680,000,000 a year. From 30 to 40 per cent. of cases requiring charitable relief are due to sickness, while sickness among wage earners is primarily the result of poverty, causing insufficient diet,

bad housing, inadequate clothing and unfavorable surroundings in the home."

The commission also found that the present methods of disease prevention and of cure are expensive, and that sickness is most prevalent among those who are least able to bear the burden, and, inasmuch as there is no prospect that wages will be increased to the point where these poor people will be able to meet these expenses, the commission proposes to devise some plan by which they may be cared for. The Journal further says:

"An extensive scheme for a federal system of sickness insurance is outlined by the commission providing for a national sickness insurance commission composed of representatives of employers and employees in equal ratio, with the federal commissioner of labor statistics and the surgeon-general of the Public Health Service as ex-officio members. It is interesting and encouraging to note, among the most important recommendations of the commission in this direction, that 'correlation of the insurance system with the medical profession, the lack of which has been a serious defect in German and British systems, is absolutely necessary.' Any one who has followed the development of industrial insurance abroad will admit that the opposition or at least the half-hearted co-operation of the medical profession, owing to the inequitable system of compensation and to the fact that no consideration was given to the medical profession in framing the various insurance schemes, has been a most important factor in the partial failure of these insurance systems. A trained medical profession is absolutely essential for the successful operation of any industrial insurance plan. The terms on which physicians are asked to assist in the operation of such a system should be fair and such as will enable them to do justice to their responsibilities. This has not been true either in England or Germany. More than this the physician does not ask. Less than this he should not be expected to accept."

The loss on account of sickness among

the poorer wage earners is now borne by themselves and the physicians. The latter give their services and get something or nothing, as the case may be. Will the average amount received for his services under the insurance system be greater than under the present system? At any rate it will be a lighter burden for the wage earner, for the expense of his misfortune will be shared by his more fortunate brothers. But why should the physician be expected to carry so much of the load? The laboring man does not get his groceries or his fuel or his clothing any cheaper when he is sick than when he is well. It can hardly be hoped that any system of sickness insurance will be adopted which contemplates a tax upon the employers, and it is difficult to see in any other system of sickness insurance any prospect for adequate compensation for the physician.

—R—

The Osteopath in Medicine.

Since osteopaths and chiropractors have been admitted by law to practice their particular methods of treating disease in Kansas, a question has arisen as to what recognition shall be given them by regular practitioners. There is, perhaps, none who would include the chiropractors in the question of recognition, and yet there is little if any difference in their conception of medicine.

According to the opinion expressed by the attorney-general, osteopaths are not authorized to administer drugs, but some of them seem to find occasion for their use. It would seem that they are not fully satisfied with the limitations of their own cult, but would prefer to enter the regular practice of medicine by an easier road than is prescribed for us. That many of them are prescribing drugs is fairly well known. Those who are a little shy of the law attempt to avoid possible penalties by giving the patients verbal prescriptions or telephoning an order to the druggist. The government has recognized them to the extent of granting them licenses to prescribe narcotics, and this fact has caused considerable comment in various parts of the

state.

Osteopaths who are prescribing drugs are doing so in violation of the laws of this state, according to the opinion of the attorney-general, and certainly deserve no recognition and no consideration from regularly licensed and qualified practitioners of medicine.

Those osteopaths who restrict themselves to the methods for which they claim distinction, who are real osteopaths practicing within the limitations prescribed for their cult, can offer no common ground upon which a consultation with a regularly qualified physician could be of service to either the osteopath or his patient. There is no basis for agreement either upon the diagnosis or treatment of a case. While the osteopath schools claim to teach all of the subjects taught in medical colleges, according to some of the leading osteopaths in Kansas, these subjects are taught from a different view point.

Those who are altruistic in their consideration of this question, those who feel that they owe a duty to the patient, should recognize the utter futility of advice or counsel given to one who has no conception of the true etiology or the pathology of disease, and one who does not understand the principles of medication. The surgeon or specialists can serve the patient of an osteopath, with fairness to the patient and credit to himself, only when such patient is referred to him without reservation. There are no conditions under which

19—Medical Journal

P

an osteopath can be given recognition as a practitioner of medicine.

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Free Examination Day.

Through the efforts of the National Association for the Study and Prevention of Tuberculosis, free examination days are being held in many parts of the country. The purpose of this is to call the attention of the public to the advisability of having frequent examinations made not only for tuberculosis, but for cancer and other rapidly increasing diseases. As a

further development of this idea, it is now suggested that a national examination day be inaugurated.

A great deal of good may be accomplished by this plan. Some harm may result from it. Just how much good and how much harm will depend upon how carefully the plans are made and how systematically they are carried out. We have no information as to the working details, but it would seem the most practical for each physician to conduct the free examinations at his office, though all should appoint the same day. There is no suggestion that these examination days are only for the benefit of those who are unable to pay. This would hardly accomplish the purpose of the movement. It would seem much better to admit every one to the free examinations. It will be a good opportunity for some of those who are ill to get the opinions of other physicians than their own attendant and some friction will necessarily result. There are not many physicians who will take advantage of such an opportunity and try to get another man's patient, but there are a few. Nevertheless, there are sure to be differences of opinion upon the diagnosis of some case, and the attending physician will be the sufferer, no matter whether his diagnosis or the other man's was at fault. Such things can be avoided if the plans are carefully made and strictly followed.

A free examination day was held in Michigan some time ago, and from the report of the committee it would seem to have been extremely satisfactory. In that state free examination day was proclaimed by the Governor, and every physician was asked to examine any person's lungs who might apply to them on that day, free of charge.

The National Association for the Study and Prevention of Tuberculosis has, no doubt, taken up the idea of a national free examination day since the result of the experiment in Michigan has been made known.

It has been suggested that such a day be set aside in Kansas, and the matter is

now being considered by the officers of the State Society.

—B—

A Fair Deal.

Commissioner W. L. Porter, of Topeka, has evolved a new plan for the medical care of the sick poor of the city and county. This plan will certainly appeal to the physicians of Shawnee County, and appears to be the most equitable solution of the problem. A similar plan has been in operation in other parts of the state and has seemed to be extremely satisfactory. We quote the plan of Mr. Porter as outlined in the Capital, November 3.

"The establishment of a charity medical fund to which both the county and city would contribute, the abolishment of the offices of both county and city physicians, and the creation of the offices of county and city health offices, are all included in a scheme worked out by Commissioner W. L. Porter, which he believes will solve the health situation in Shawnee County and eliminate the ill feeling between the county and city which has only recently grown up.

"Mr. Porter believes the physicians who have charge of the health of the community should spend practically all their time in studying conditions and applying preventive remedies. So he advocates that the health officers or physicians discontinue treating cases, except in unusual emergencies.

"He favors the idea of having the physicians practicing in the city and county do the charity work under the general supervision of the Shawnee County Medical Society. Each physician would answer emergency or charity calls and would take full charge of the cases coming to him. He would report on each case to the Medical Society after investigating it, as to whether or not the patient was able financially to pay a part of the expense.

"The fund raised by the city and county would be placed in the hands of the Medical Society. A graduated scale of charges would be worked out for patients and the man able to pay a part of the expense would be asked to do so. Where this was

impossible no charge would be exacted.

"The medical fund would be administered by the County Health Society, and each physician would receive payment for his work. The remuneration would, of course, vary with the ability of the patient to pay, and the more the patient could pay the more the physician would receive. In the case of a charity patient the physician would not be given as much as where some payment was made, but he would receive something.

"As it is now, many physicians take charity cases and never receive anything, Mr. Porter argues, and under the new plan they would always get something."

—R—

Positive Proof.

The following is clipped from an article entitled, "The Necrophile," by Dr. Geo. A. Zeller, alienist of the Board of Administration and formerly superintendent Peoria State Hospital, published in the Institution Quarterly under date September 30:

"It is a notable fact that in the insane, no matter how completely or how long the intellect has been shattered, there is, with the approach of death a return to reason. I have seen it many times. Patients, who had not spoken a rational word for years and who had almost maliciously refused to speak to their kinsfolk, would, upon their death-bed, not only recognize them, but would ask their forgiveness and leave many loving messages for those at home.

"I left word with the nurses to note any return of sanity in Duden and to send for me at once. . . .

"I did not wait to be called to the death-bed of Duden, for the marks of approaching dissolution were too plain to be mistaken and I concluded to remain with him to the end. I sat beside his bed and asked the nurses to remain. He was breathing heavily, when all at once his features brightened and he stretched out his emaciated arms and pointed into space, exclaiming, "There she is; I knew I would find her. Doctor, look! look! Don't you see her? She is calling me to come and I am going to her." He half arose in bed,

but sank back exhausted."

—R—

The Wisconsin Anti-Feesplitting Law has been amended, and now provides that the physician receiving a division of a fee is equally guilty with the physician or surgeon giving a commission or dividing a fee. It also provides that "any physician, surgeon, nurse, anaesthetist, or medical assistant or any medical or surgical firm or corporation who shall render any medical or surgical service or assistance whatever or give any medical, surgical or any similar advice or assistance whatever to any patient for which a charge is made from such patient receiving any such service, advice or assistance, shall render an individual statement or account of his charges therefor directly to such patient, distinct and separate from any statement or account by any other person, firm or corporation having rendered or who may render any medical, surgical or any similar service whatever or who has given or may give any medical, surgical or any similar advice or assistance to such patient. Any violation of this provision shall be punishable by the penalty prescribed in section 1 of this act."

—R—

Dr. William Hill Neel was born in Sumner County, Tennessee, July 24th, 1836, and died at his home in Mayfield, Kansas, October 31st, 1915, of apoplexy. He was a graduate of the University of Nashville, now known as the Vanderbilt University. He was fifty-five years a practicing physician, three years of which time he was surgeon to the Twenty-fourth Tennessee Regiment of the Confederate Army. For thirty-two years he practiced his profession at Mayfield, Kansas, being one of the oldest practitioners of the state. He leaves a wife and three children to mourn his loss.

—R—

Zaussailoff (Russkiy Vrach, Petrograd) recommends the use of tincture of iodine as a substitute for potassium iodid in syphilis, rheumatism, etc. He begins with one drop three times daily and increases the dose by one drop each day until in

some cases as much as fifty drops are given at a dose. There are none of the by-effects, such as are common in the use of potassium iodid, and no gastro-intestinal irritation.

—————R—————

A very telling article appeared in *Puck*, issue of April 15th, comparing the investment of time and money necessary to qualify for the practice of medicine and of Christian Science. It is conservatively estimated that the average medical graduate has given from four to seven years of his time, representing at least \$3,000; living expenses during course, \$3,000; books, instruments, laboratory charges, etc., \$1,000; hospital internship expenses, \$1,000; or \$8,000 as the cost of his preparation for care of the sick. The Christian Science "healer" buys a copy of Mother Eddy's "Science and Health," at \$3.00, and a Prince Albert suit at \$35.00; \$38.00 in all, prepares him to pray over poor fools for pay. Why be a hard-working doctor?—Ex.

—————R—————

Sherman Elliott, of Lawrence, has been appointed to succeed Dr. L. R. Sellers as superintendent of the Larned State Hospital. Mr. Elliott was formerly a member of the Board of Control, appointed by Governor Hoch as a member of the first board. Mr. Elliott has had considerable experience in the management of insane hospitals, but he is not a physician. This experiment may possibly demonstrate the advisability of separating the executive from the medical departments of our state institutions.

—————R—————

Dr. Louis Atwood, of Topeka, was killed in a wreck on the Union Pacific railroad near Randolph, Kansas, on October 16. Doctor Atwood was a graduate of the Kansas Medical College in 1905. He had practiced at Meriden for some years before coming to Topeka.

—————R—————

Beginning with the January, 1916 number, *The Journal of Cutaneous Diseases*, including syphilis, will be published for the

American Dermatological Association by W. M. Leonard, of Boston. Each number will contain eighty pages, and, as far as possible, be of interest and value to the general practitioner as well as to the dermatologist. George M. MacKee, M.D., is the editor.

—————R—————

Dr. Phillip B. Matz, of Leavenworth, has been appointed to succeed Dr. J. T. Faulkner as hospital physician at the Kansas penitentiary. Dr. Faulkner has held the position for over two years, but has handed in his resignation to take effect November 15. Dr. Matz was formerly assistant surgeon at the National Military Home.

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The Dickinson County Medical Society has recently been reorganized, and the following officers elected for the coming year: President, Dr. W. A. Klingberg, Elmo; Secretary, Dr. J. N. Dieter, Abilene; Treasurer, Dr. S. N. Chaffee, Talmage.

—————R—————

Delbet (Bul. de l'Acade. de Med., Paris) claims to have demonstrated on dogs and by clinical experience that phagocytosis can be increased by the injection of a 12.1:1,000 solution of anhydrous magnesium chloride. The solution does not seem to be toxic.

—————R—————

Link (Munch. Med. Woch., Munich) reports that he has been able to control the night sweats of tuberculosis cases by the administration of a level teaspoonful of sodium chloride in half a glass of water.

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Heckel (Jr. Med. Soc. Penn.) states that he believes that iced normal salt solution is a specific remedy in gonorrhœal conjunctivitis. It is harmless, effective and easily applied.

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Brig. Gen. George M. Sternberg, retired, surgeon general of the army from 1893 to 1902, died November 3, at his home in Washington. He was 77 years old.

American First Aid Conference.

The American First Aid Conference was recently held in Washington, D. C. The deliberations culminated in the adoption of a resolution creating a Board on First Aid Standardization for the purpose of studying first aid problems and standardizing methods, materials and equipment employed in the administration of first aid to those injured in the pursuit of industrial occupations and in war.

RESOLUTIONS ADOPTED BY THE AMERICAN FIRST AID CONFERENCE.

WASHINGTON, D. C., August 24, 1915.

Your Resolution Committee has the honor to report that it has carefully considered the resolution which was committed to it and has redrafted it as follows:

Whereas, There is a great lack of uniformity in first aid methods; in first aid packages, and in other first aid equipment; and in first aid instruction, and

Whereas, Many of the aims of first aid are defeated thereby and needless suffering and expense incurred; therefore be it

Resolved, That this Conference recommends to the President of the United States that he appoint a "Board on First Aid Standardization," said Board to consist of one officer each from the Medical Corps of the United States Army, the Medical Corps of the United States Navy, the United States Public Health Service, the American National Red Cross, the American Medical Association, the American Surgical Association and the Association of Railway Chief Surgeons of America; this Board to deliberate carefully on first aid methods, packages, equipment and instruction and to recommend a standard for each to a subsequent session of this Conference to be called by the Permanent Chairman; the creation and maintenance of the said Board to be without expense to the United States.

Your Committee further reports that it has personally consulted the Assistant Solicitor of the Treasury and he has given the opinion that there is no legal objection to the resolution or its purpose.

The Committee has also personally con-

sulted the Secretary to the President and he has assured your Committee that it is his personal opinion that the President will take favorable action in the premises.

W. C. RUCKER,

Asst. Surgeon General, U. S. P. H. S.

MAJOR ROBERT U. PATTERSON,

M. C. U. S. A., Representing the Amer. Nat'l Red Cross.

W. L. ESTES,

Chairman Comm. on Fractures, Amer. Sug. Ass'n.

Committee on Resolutions.

FIRST MEETING AT WASHINGTON, D. C.

AUGUST 23 AND 24, 1915.

The following resolution was passed at this meeting: That the questions noted below be sent to the Chief Surgeons of Railroads, Mines and Manufacturies, first, to be answered by them; second, that a copy of these questions be sent by the Chief Surgeons to their Associate Surgeons.

The object of these questions is to attempt to get the opinion and experience of a number of surgeons and to formulate them for publication.

Please answer each question on a separate sheet of paper and sign your name to each sheet:

1. What has been your experience with the most available first-aid package and dressing for small and large wounds?

2. What has been your experience with the immediate employment of antiseptics in accidental wounds; what antiseptic have you used, in what strength, and how applied? Have you employed tincture of iodine; if so, how and what have been the results?

3. What in your experience has been the most efficient and most readily applied method of fixation for injuries of the (a) upper and (b) the lower extremity?

4. Have you considered the construction of a stretcher, which, in addition to serving as a means of transportation of injured, will have appliances for the fixation of the upper and lower extremity, somewhat along the lines of a Bradford splint, or the Gihon naval splint?

5. Please state your views on some liquid

ointment dressing which would be available for first aid in large wounds and burns with the object of preventing the usual dry-guaze dressing adhering to the wound and rendering subsequent dressings painless.

These questions have been sent to all the members of the Association of Railroad Chief Surgeons of America, and a few other Civil and Military Surgeons.

Please give these questions your personal attention, first, and mail your answers to the Secretary, at the same time writing him and giving him the number of copies of these question sheets desired to mail to your Associate Surgeons.

Very sincerely yours,

JOSEPH C. BLOODGOOD, Secretary,
904 N. Charles, St., Baltimore, Md.

We are requested to announce in connection with the above that the Secretary of the First Aid Conference, Joseph C. Bloodgood, M.D., 904 Charles St., Baltimore, will welcome answers to the questions from any surgeons of experience in the treatment of accidental injuries, and that these answers will receive full consideration in the deliberations of the Board on First Aid Standardization.

It is further requested that at the next meeting of the Society a resolution be submitted to appoint three surgeons on a special committee on first aid; this committee to study and deliberate carefully on first aid methods, packages and equipment, as well as instructions, and recommend a standard for each to the National Board, and to participate in the next First Aid Conference through a special representative or representatives from this committee. The next First Aid Conference will be convened to consider the results of the labors of the National Board.

SOCIETY NOTES.

NORTHEAST KANSAS SOCIETY.

The Northeast Kansas Medical Society met in the Commercial Club rooms at Topeka Thursday, October 28. The program was carried out as printed in the last num-

ber of the JOURNAL, with the exception of the paper of Dr. Menninger, which was omitted by his request. The visiting members were entertained at dinner by the Shawnee County Society. The meeting was well attended and was an exceptionally profitable one.

WYANDOTTE COUNTY SOCIETY.

The Wyandotte County Society met at the Commercial Club rooms in Kansas City on Tuesday evening, November 2. Dr. R. C. Lowman presented a paper on "Fractures," and Dr. L. B. Spake a paper on "Diabetes."

DOUGLAS COUNTY SOCIETY.

The regular monthly meeting of the Douglas County Society was held in the Y. M. C. A. building at Lawrence on Tuesday, October 12. The evening was devoted to a general discussion of the Kansas University Hospital, led by Doctor Sundwall, who explained the objects and purposes of the hospital and plans for its operation.



PREJUDICE AGAINST PROFESSIONAL PUBLICITY.

Publicity has been suggested and employed in recent years as a potent remedy for certain prevalent public ills. And, in the sense intended, it is doubtless an effective agent. The laying open to the public gaze the secret workings of corrupt organizations certainly tends to exercise a powerful check upon their further questionable conduct.

But publicity, in another and different sense, is in itself an evil, immodest and reprehensible. Publicity of the kind akin to notoriety, self-exploitation, fictitious self-assertion, always jars upon refined sensibilities, and, when resorted to by physicians, is to be deprecated in most severe terms.

The grounds for the traditional prejudice of the medical profession against this latter sort of publicity have been a matter of surprised inquiry on the part of those who confuse the professional standard of decency and propriety with that of business, in which a universal self-assertiveness and aggression are so characteristic. And indeed the contrast between the two spheres along these lines is enough to excite wonder. For there are few enterprises these days that do not invoke these methods of promotion in some form. The columns of the public press are the most valued, because the most influential avenues of reaching and seducing the public mind. Especially is this true of the reading columns, which are supposed to have an authoritative force, and to be vouched for by the editorial management. And so dependent upon these sources of revenue are most of the periodicals of the day that advertisements of any quack or nostrum will, for sufficient price, be put into the reading columns as reading notices. This practice has lately been inhibited to some degree by a statute requiring that such advertisements be properly labeled. This enactment was made necessary by the shameful fact that almost any newspaper in this broad land could be hired to repeat as news or proclaim as editorial judgment the echoes of an advertising agent of a patent medicine or a patent food or a medical charlatan.

* * *

This universal resort to publicity is of quite recent vogue, though our profession's prejudice against participation therein is as ancient as prehistoric tradition. And I am starting out on one of the Corral ponies to discover, if possible, why the medical profession has always looked and is still looking with such disfavor upon methods by which every other vocation is fattening; and what is the ground for this seeming puritanical self-denial, if any real ground exists.

* * *

It might be suspected that this prejudice, if it may be so called, has its ancient

origin in those remote times when every movement of the physician was cloaked and hooded in mystery; when the very virtue with which he was supposed to be invested was a fabric of mysticism and occultism peculiar to himself. He claimed seclusion and retirement to be essential to that communion with the hidden forces from which he presumed to derive his power. The medicine-man was also a priest, and performed the offices of divination, soothsaying, reading of portents in the flight of birds, aspects of entrails and positions of the heavenly bodies. To properly impress the credulous masses with his authority there was a needful abhorrence of publicity on the part of the ancient esculapian. Disclosures of means and methods and their limitations would have been fatal to his prerogatives.

* * *

While this may be a plausible explanation of this prejudice in its inception, it will not account for its survival and persistence to the present day, in which we have physicians of quite another stamp, with saner methods and sounder procedure. Indeed, it may be said with assurance that the medical profession of today is strongly in favor of a wider public knowledge of the scientific basis of their art. Publicity of this sort will be curative of the evils of the other kind which they so much abhor. It is that evil publicity of self-exploitation and self-aggrandizement that is so repugnant to the reputable physician. It is the same selfish and dishonest motive which was the incentive to silence in the ancient days that is now behind the medical impostors of the present day, with their audacious pretensions. And now as then the ignorance and credulity of the people are their main reliance and support.

* * *

These offensive methods are rendered still more odious by the observation that this medical ignorance and credulity on the part of the masses have seemed to grow in direct proportion to the scientific advancement of the medical profession. Medicine has outgrown its superstitions and deceptions,

but public credulity still survives in spite of many a mighty shock. It is a remarkable fact that the public is not so densely ignorant and gullible on any other subject as on that which deals with their own bodies. They are in these matters the notorious and easy dupes of every lying and advertising cheat at large. There is nothing that will be so readily accepted and believed as the claims and promises of the medical pretender. There seems to be a survival in the public mind, through the long centuries, of an appetite for the mysterious, supernatural and impossible in the healing art.

* * *

But in a righteous wrath against quacks outside of the profession, it must not be forgotten that there are many within the profession who avail themselves of these odious methods, clandestinely if not openly. They indirectly or secretly hobnob with newspaper reporters, and supply them with "data." They procure professional allusions to themselves, their opinions or their work in the newspapers. Such methods have become too common of late. There has been slowly but most certainly creeping through the profession the lethal poison of a lowered ethical standard. The exploitation in the newspapers of medical methods and the wonderful doings of individuals, however ethical they may seem to appear, is strongly to be deprecated. Such practices delude the public, stir the appetite for the morbid, discredit science and disgrace the medical profession. They advertise a method and a man perhaps, but discredit the value of the one and the sincerity of the other. The observation of these cunning propensities and the knowledge of the underlying motive have had the effect of keeping alive and intensifying the innate prejudice in the minds of all decent physicians against public exploitation.

* * *

Moreover, there is a keen sense of insufficiency and inadequacy of their resources and of the great fallibility of their best-directed efforts on the part of even the wisest and most successful physicians.

They cannot promise what they do not feel certain they can perform. They may plan and propose wisely and well in the matters of life and health, but the issue is beyond their control. How presumptuous then to vaunt and proclaim themselves before the public!

* * *

"But," it is asked, "why may not a physician at least set forth his attainments and facilities by public announcement? Why may he not, by simple and correct statement of facts, aid the public in their selection of a physician?" Such pure and innocent motives for resorting to publicity would seem to challenge our admiration and approval. But merit and ability along professional lines will never be found to weigh heavily in the estimation of sound minds when the assertion of the possession of these qualities emanates from the alleged possessor, or at his instigation. Such claims would naturally and justly incite distrust of the modesty if not of the sincerity of the one who resorted to their publication.

* * *

The basis of all argument against medical publicity must rest on motive. A quack is a man more interested in himself than in the healing art; more desirous of making dollars than of curing disease. A physician is one whose first thought is to cure his patient. This is the sharp dividing line. True physicians cannot resort to advertising methods, because medicine is not a business, and advertising methods belong solely to business. The medical profession must be above trade and the devices and tricks of trade. It is an unwritten law that no physician can honorably patent any drug, discovery or instrument, or in any way reap exclusive pecuniary gain from the learning and ingenuity of his brain. To do so would be trading in people's lives and a crime against the race. Still more, the members of this profession are tirelessly seeking by hygiene and prophylaxis to render their own calling useless and superfluous and themselves occupationless. Does this smack of the

methods of business?

* * *

It is a glorious thing to belong to a profession of which these things can be said. But the honor and the glory will come only to those who are willing to remain unproclaimed as honored; who find sufficient reward in quietly doing their work and in the unspeakable satisfaction of a happy and peaceful conscience.

—————R—————

New and Nonofficial Remedies.

During October the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

Mallinckrodt Chemical Works: Betanaphthyl Salicylate, M. C. W.

Merck and Co.: Betol, Bismuth Tribromphenate, Merck; Butylchloral Hydrate, Merck; Ethyl Bromide, Merck; Homatropine Hydrochloride, Merck; Sodium Cacodylate, Merck.

H. K. Mulford Co.: Hay Fever Vaccine, Mulford: 4 syringe packages (0.0025 mg., 0.005 mg., 0.01 mg. and 0.02 mg.) and 1 syringe packages (0.02 mg.).

Merck and Co.: The Council has recognized Merck and Co. as selling agent for the products of Knoll and Co. and described in New and Nonofficial Remedies. The Council has also recognized Merck and Co. as selling agent for Kelene.

Heyden Chemical Works: Betol: Having been advised by the Heyden Chemical Works that Betol is no longer offered for sale the Council voted that it be omitted from New and Nonofficial Remedies.

Yours truly,

W. A. PUCKNER,

Secretary Council on Pharmacy and Chemistry.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with New and Nonofficial Remedies:

Mercurialized Serum, Mulford.—A solu-

tion of mercuric chloride in normal horse serum diluted with physiologic sodium chloride solution. It is proposed for the treatment of syphilis, particularly the cerebrospinal type. It is supplied as:

Mercurialized Serum, Mulford, No. 1.—One 30 cc. ampule containing the equivalent of 1.3 mg. (1/50 gr.) mercuric chloride with rubber tube and intraspinal needle.

Mercurialized Serum, Mulford, No. 2.—One 30 cc. ampule containing the equivalent of 2.6 mg. (1/25 gr.) of mercuric chloride with rubber tube and intraspinal needle.

Mercurialized Serum, Mulford, No. 3.—A package of ten 30 cc. ampules each containing the equivalent of 1.3 mg. (1/50 gr.) of mercuric chloride with rubber tube and intraspinal needle.

Mercurialized Serum, Mulford, No. 4.—A package of ten 30 cc. ampules each representing 2.6 mg. (1/25 gr.) mercuric chloride with rubber tube and intraspinal needle.

Mercurialized Serum, Mulford, No. 5.—Eight cc. mercurialized serum, Mulford, containing the equivalent of 22 mg. (1/3 gr.) of mercuric chloride in a syringe graduated in fourths, with needle.

Mercurialized Serum, Mulford, No. 6.—A package of ten syringes, each containing 8 cc. liquid which represents 22 mg. (1/3 gr.) of mercuric chloride. H. K. Mulford Company, Philadelphia, Pa. (Jour. A. M. A., Oct. 2, 1915, p. 1185).

Radio-Gem Outfit No. 4.—An apparatus designed for the production of radio-active drinking water by the action of radium sulphate contained in terra cotta plates. It consists of two plates contained in 250 cc. bottles; when the bottles are filled with water the two plates impart about 1.8 microcurie (5000 Mache Units) to the water in twenty-four hours. For action, uses and dosage refer to the article on radium in New and Nonofficial Remedies. Schieffelin and Co., New York (Jour. A. M. A., Oct. 9, 1915, p. 1281).

Histamine Hydrochloride.—The hydrochloride of the base beta-iminazolylethylamine (histamine). It is a valuable

reagent for the standardization of pituitary preparations.

Imido, Roche.—A name applied to histamine hydrochlorid.

Ampules Imido, Roche.—Each ampule contains 1.1 cc. of an aqueous 1 in 1000 solution of Imido, Roche (1 cc. contains 1 mg.). Hoffmann-LaRoche Chemical Works, New York City (Jour. A. M. A., Oct. 16, 1915, p. 1367).

Betanaphthyl Salicylate.—The salicylic acid ester of beta-naphthol. It passes the stomach unchanged, but is split into its constituents in the intestinal tract. It is believed to act as an intestinal antiseptic and to act in a similar way in the bladder. It is said to be useful in intestinal fermentation, catarrh of the bladder, rheumatism, etc. Mallinckrodt Chemical Works, St. Louis, Mo. (Jour. A. M. A., Oct. 30, 1915, p. 1553).

Betol.—A name applied to Betanaphthyl salicylate (which see). Merck and Co., New York (Jour. A. M. A., Oct. 30, 1915, p. 1553).

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The value of educating invalids along health lines is fully recognized at the Battle Creek Sanitarium, where patients are taught the essentials of health renewal and retention in an unobtrusive but nevertheless effective fashion.

Daily lectures on health topics are arranged by the medical faculty, and patients are invited to attend, although their presence is entirely optional.

The range of subjects is wide—including illustrated lectures on various diseases, their causes and methods of prevention, practical demonstration of healthful modes of exercise, lessons in health cookery, instruction for emergencies and an occasional health question box, into which patients may drop queries regarding health topics of individual interest.

These lectures, though forming only a slight part of the program arranged to relieve any possible tedium of sanitarium life, are readily appreciated by the guests as well as the patients, for they are enabled to learn without conscious effort, many

valuable lessons upon health and its maintenance.

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Allen Treatment of Diabetes.

"The fundamental significance of Allen's treatment, involving a suitable initial fast, lies in the belief that if glucosuria and hyperglycemia are prevented, the damaged internal function of the pancreas, on which the utilization of sugar ultimately depends, is protected, and rest becomes possible. Structural losses cannot be repaired; but it is reasonable to assume that if there is a "functional" element in the etiology of human diabetes, a complete rest of the weakened function may both permit and facilitate recovery.

"The policy of Allen's method involves 'prompt and lasting freedom from glucosuria and acidosis' not only in mild and incipient cases but also in all diabetic patients, even the severest. This represents a far more radical treatment than any hitherto proposed. The avoidance of acidosis means the elimination of the necessity of administration of objectionable alkalis often given in very large doses. The danger of coma is correspondingly reduced. The subsequent carefully selected diet is intended to maintain the advantage of freedom from intoxication at any cost. Therefore, instead of attempting to increase the weight of the somewhat depleted patient and maintain it at the highest possible level, as has so often been attempted, the aim is to keep the weight low in the belief that the reduction is beneficial to the diabetic. Any gain which brings back glucosuria or ketonuria must be checked. From this point of view, it becomes necessary on the return to restricted diet to test the patient's tolerance not only to carbohydrate but equally well to fat and protein, and keep within it. During the fasting periods, alcohol may be given until the ketonuria disappears. This is not absolutely essential, though alcohol appears to be valuable and does not produce glucosuria.

"Although it is perhaps too early to grow unduly enthusiastic with respect to the

success of the treatment by initial fasting," says The Journal of the American Medical Association, "enough favorable reports have been recorded to designate the outlook as one of promise. Dangerously weak and emaciated patients have borne the fasting with apparent benefit, 'giving the impression that they have been suffering more from intoxication than from lack of nutrition.' Many of the dangers which suggested themselves have not arisen or have been successfully managed by those who have tested the method. After all, under any dietary plan the most important feature is to educate the patient so that he can carry out a dietary scheme with intelligence. Until the physician himself knows foods as well as he knows drugs, it is useless to expect dependable results from those in his care. Too often he is hopelessly bewildered when there is need of suggesting a 'diet list.' Green corn and celery, bananas and cucumbers are all in the same vegetable category in his mind. A radical treatment which removes polydipsia, secures relief from polyphagia and makes the patient feel better is always welcomed by the individual; but the treatment cannot be expected to succeed unless it can be intelligently prescribed.

"Aside from the advantages of comfort and simplicity, the ultimate prognosis of diabetes on the basis of the new treatment must depend on the question whether diabetes is an inherently progressive disease or 'the simple weakness of a metabolic function.' Rest and restoration may succeed in one case; repair may fail in the other. Joslin has come to feel that coma no longer represents the culmination of diabetes, but that it is an avoidable accident. Whatever the ultimate outcome, Allen's treatment is believed, in his own words, to remove the glucosuria and acidosis more quickly and surely than has been the practice heretofore, and to enable patients to do better when these symptoms are removed than when they are allowed to continue. Any plan which holds out prospects like these for severe diabetes deserves to be studied carefully, to say the least."

Is Strychnin a "Cardiac Tonic"?

"Clinical evidence sometimes endows drugs with diverse and unexpected properties. In some degree this seems to have been the case with strychnin. Many physicians administer this drug in cardiac emergency, although the pharmacologists have not been able to demonstrate that it increases the output of the heart. Doubtless for this reason there is a considerable degree of reserve in the textbooks of pharmacology in condemning any presumably useless practice that has been widespread. Thus, some books state that no essential increase in blood pressure follows the experimental administration of nontoxic doses of strychnin, but admit that, in pathologic conditions attended with abnormally low pressures, beneficial results may possibly follow. The alleged value of strychnin in surgical "shock" has no experimental basis to support it and is, indeed, denied by many competent observers. It is a fact readily demonstrated on animals that cardiac muscle is not only not stimulated, but also decidedly depressed both in amplitude and in rhythm under the influence of strychnin. Greene sums up the situation," says The Journal of the American Medical Association, "when he says that the beneficial effects of strychnin on the circulatory system which have been claimed in therapeutic practice must rest wholly on the changes in the reaction delicacy through the central nervous mechanisms. By an increase in the irritability of the cardiac inhibitory and acceleratory centers, normal stimuli may produce more profound and beneficial changes in the musculature of the cardiac apparatus. It must be remembered, however, that even this favorable response to strychnin is somewhat antagonized by the depression of the cardiac muscle tissues.

"Inasmuch as the laboratory studies of the action of strychnin show that doses permissible in man can scarcely be of direct use in the treatment of heart disease, the use of the drug as a 'cardiac tonic' must be defended, if at all, on the basis of some indirect effect. In the series of articles on

practical pharmacology in The Journal of the American Medical Association, it has been attempted in a mild way to make allowance for the undemonstrated, reputed usefulness of the drug by stating that strychnin may slow the heart through vagus stimulation at times; it may improve the circulation through its actions on the vasomotor and respiratory centers—for one cannot wholly separate the influence of the respiration and circulation—and thus through the circulatory changes it may improve the nutrition of the heart. In a similar way it causes improvement in the voluntary muscles and other tissues of the body when it improves the circulation by increasing muscular activity.

"In a review of the facts gathered by clinical observers on this subject, Newburgh quotes evidence which shows that, even though a single dose of strychnin does not benefit persons suffering from heart failure, it is not proved that the prolonged use of the drug may not be a material aid in the relief of broken cardiac compensation. At the Massachusetts General Hospital in Boston he investigated the possible effect of the administration of large doses of strychnin over a period of several days in persons suffering from chronic heart failure. None of the patients were benefited by strychnin. The compensation was not improved in the slightest by the drug, but some of the patients subsequently recovered their compensation as the result of digitalis administration. The failure of strychnin to have its reputed effect, therefore, cannot be explained by assuming that the patients under observation were beyond all therapeutic aid. Those who improved under digitalis failed to do so during the strychnin period solely because strychnin does not improve the heart. Newburgh concludes that neither pharmacologic nor clinical evidence justifies the use of strychnin in the treatment of acute or chronic heart failure."

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Trachea Position.

C. B. Webb, A. M. Forster and G. B. Gilbert, Colorado Springs, Colo. (Journal

A. M. A., September 18, 1915), describe and illustrate the methods by which the trachea can be felt in the majority of patients and state that they have been surprised to find that in most cases of pulmonary tuberculosis, even in the early stages, it is deviated to one side or the other. Palpation of the position may also be confirmed by auscultation. It is quite possible that deviation in an apparently normal person may be due to to an old healed one-sided infection. The heart apex is also sometimes deviated with the trachea. The cause may be pleural adhesions together with fibrosis in the lungs or, possibly, the contraction of the lungs' roots alone. Marked deviation may suggest adhesions of the pleura on that side and forewarn us that the application of pneumothorax to that lung in advanced disease may not succeed. They have found frequently that the movement of the trachea to the healthy side following the application of pneumothorax foretells success. They give the details of the results of their examination in cases of tuberculosis as an aid to the diagnosis, and recommend it as a routine procedure.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF AUGUST 24, 1912.

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Sworn to and subscribed before me this 21st day of September, 1915.

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Some Practical Points Regarding the Wasserman Test for Syphilis.

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Read at meeting of the Northeast Kansas Medical Society at Topeka, October 28, 1915.

It is my purpose, in the following contribution, to discuss briefly certain practical points regarding the Wassermann test for syphilis, points which are of special interest to the general practitioner who may avail himself of this most valuable aid in the diagnosis of the disease and the control of its treatment.

It has now been over nine years since Wasserman, Neisser and Bruck⁽¹⁾ published their description of what is now known as the Wassermann test, and during this time it has been given a most thorough trial throughout the world. At the present time the consensus of expert opinion is that, all in all, it is the most valuable aid that we possess in the diagnosis of syphilis, and certainly my own experience, covering over 20,000 personally performed tests, has convinced me that this reaction is of inestimable value, not only in the diagnosis of the disease, but as a control of the treatment.

However, valuable as this test is to the general practitioner, it must be admitted that in the hands of inexperienced serologists it has been the cause of many mistaken diagnoses and much harm, and the diverse reports submitted by such serologists have led to a spirit of skepticism in the profession and have undoubtedly led many a practitioner to neglect the use of

a most valuable diagnostic method. Yet, as Vedder⁽²⁾ has well said, in discussing the methods of performing the test: "One is impressed by the fact that the Wassermann reaction must actually be a test of most surprising merit in order to have survived all the clumsy technique that has been perpetrated in its name."

VALUE OF THE TEST TO THE GENERAL PRACTITIONER.—While, in some localities, the impression appears to have been gaining ground that the Wassermann test is of great value only to the specialist, as a matter of fact it is doubtful if there has ever been discovered a diagnostic method which is of greater value to the general practitioner. If there is one fact that our recent researches upon syphilis has proven, it is that many of the old clinical conceptions of the disease are erroneous and that this infection is responsible for many conditions that were once thought to be due to other causes. At the present time we know that almost all instances of aortic disease are of syphilitic origin; that many patients diagnosed as suffering from acne, arteriosclerosis, arthritis, epilepsy, tuberculosis, and general debility are in reality victims of this protean disease; and that syphilis of the lungs and stomach, instead of being medical curiosities, are really not uncommon. The researches of Baetz,⁽³⁾ on the Canal Zone, upon acute arthritis in negroes, is a case in point. He found that of 100 patients admitted to Ancon Hospital, suffering from acute arthritis, no less than 63, or 63 per cent, had syphilitic arthritis, as shown by the Wassermann test and the result of specific treat-

ment. In my own experience I have frequently observed conditions which the Wasserman reaction proved to be syphilitic in nature, although the clinical symptoms clearly pointed to another diagnosis, and in such instances I have never failed to see the symptoms relieved by proper specific treatment. Such facts prove that this test is of the very greatest value to the general practitioner and I am satisfied that if it were more largely used by him many conditions would be found to be of syphilitic origin that would otherwise be wrongly diagnosed, and that the assistance afforded him by this reaction would convince him that it is one of the most valuable diagnostic aids that medical science has ever placed in the hands of the profession.

THE SPECIFICITY OF THE TEST.—Naturally the first question the diagnostician asks, when a new diagnostic reaction is offered the profession, is: Is this reaction specific for the disease which it is supposed to detect? As regards the Wassermann reaction the answer to this question must be in the negative, for positive reactions with this test have been obtained in conditions other than syphilis. While this is true, the fact remains that a positive reaction with this test indicates syphilis in so immense a proportion of the patients in whom it is obtained that the practical value of the test is hardly at all lessened by the few instances in which positive results have been obtained in non-syphilitic conditions. As our knowledge of the technique of the test and the factors influencing results with it has advanced, the number of positive results in diseases other than syphilis have steadily decreased, and it is certain that any considerable percentage of positive results in non-syphilitic cases with the Wassermann test is proof positive of either poor technique or a wrong interpretation of the results obtained.

The Wassermann reaction is sometimes positive in malarial infection, during the febrile stage; in yaws, a disease due to a closely related spirochæte; relapsing fever;

leprosy; and in diabetic patients in whom acidosis is present. In most of these conditions the diagnosis is clear and repeated Wassermann tests will often result in demonstrating that the positive reaction is only transient.

As regards the frequency with which a positive reaction is encountered in diseases other than syphilis, I may state that in my own experience I have obtained twelve positive reactions among 3,054 individuals suffering from diseases other than syphilis, or 0.39 per cent. Of these patients five were suffering from malarial infection and were tested during the febrile stage, the reaction disappearing when the temperature reached normal; three were diagnosed as tuberculosis; three as pityriasis rosea, and in one the diagnosis was undetermined. In the pityriasis rosea cases the reaction was weak and would not have been returned as positive, while in two of the tubercular cases a history of syphilis was afterward obtained, but even considering all of the cases as positive, it is obvious that so minute a percentage of positive results in conditions other than syphilis has little effect upon the actual value of the test as a diagnostic procedure. Similar results have been obtained by Vedder,⁽⁴⁾ who had four positive reactions among 1,049 individuals suffering from other diseases, or 0.4 per cent.

It will thus be seen that while we cannot claim that a positive Wassermann reaction is absolutely specific for syphilis, from a practical standpoint it is doubtful if we have any diagnostic test that is more specific, the limit of error, when the technique is correct, being less than 0.5 per cent.

FACTORS INFLUENCING THE RESULTS OF THE TEST.—There is little doubt that we are yet ignorant of many conditions which may influence the results of the Wassermann test, but certain factors have been discovered which have a very marked influence upon the reaction. The most important of these are variations in the amount of complement inhibiting substances in the blood serum of syphilitics;

the ingestion of alcohol; and the growth of various bacteria in the blood serum to be tested.

a. Variation in Amount of Inhibiting Substances.—From our present knowledge of the Wassermann reaction it is universally admitted that it is due to the interaction of lipotropic substances in the blood serum of syphilitics and lipoids in the antigen employed in the test, such interaction inhibiting the activity of complement. Until recently it was thought that there was little variation in the amount of these lipotropic substances in the blood serum of syphilitics from day to day, but I have been able to demonstrate that the blood serum of undoubted syphilitics may, even in the absence of treatment, vary so greatly in the amount of complement inhibiting substances present, that a negative reaction may be present at certain intervals, although a positive one was present both before and after the negative phase. The experiments demonstrating this fact were made upon prisoners at the U. S. Disciplinary Barracks, at Fort Leavenworth, and were published in 1914.⁽⁵⁾ Untreated cases of primary, secondary, and latent syphilis were tested by making daily titrations of the blood serum with the Wassermann test, all of the cases having given a positive reaction before the experiments were begun. It is not necessary here to consider the data obtained in detail, but it may be stated that in all marked variations were observed in the strength of the reaction from day to day, and that on some days the reaction actually was negative. Thus in one secondary case of the four tested, a negative reaction was obtained on one day, a plus or doubtful on three days, and a plus-minus, or practically negative reaction on one day; while in one latent case a positive reaction was obtained on only two days of the seven days during which the serum was tested.

These observations prove that the substance or substances giving rise to the positive Wassermann reaction in the blood of syphilitics varies greatly in amount

from day to day and that a positive reaction may, on the following day, be followed by a negative one, or *vice versa*. This fact demonstrates how worthless a single negative reaction may be in excluding syphilis in a suspected individual and indicates the very great importance of repeated examinations in such instances. This variation in the amount of complement inhibiting substances also explains some of the divergent results reported upon the same blood serum by different laboratories, a fact that has caused many practitioners to lose faith in the accuracy of the test.

b. The Ingestion of Alcohol.—The ingestion of considerable amounts of alcoholic beverages a few hours before blood is collected for the Wassermann test may render strong positive results negative. This fact was discovered by Captain Nichols and myself, in 1911, and our results, which have since been confirmed by numerous investigators, were published during that year.⁽⁶⁾ Briefly stated, we found that the ingestion of alcohol, in the form of beer or whiskey, and in amounts varying from 180 to 240 c.c. of whiskey and 700 c.c. of dark beer, was capable of rendering very strong positive reactions negative, and that this negative reaction may persist for as long as 24 hours after the ingestion of the beverage. This fact is of practical importance, as we have found repeatedly in the service, and teaches us that no specimen of blood should be collected for a Wassermann test without careful inquiry concerning the ingestion of alcoholic beverages during the preceding 24 hours, and, if such a history is obtained, the blood should not be collected until the next day.

c. The Growth of Bacteria in the Blood Serum.—In 1915, I called attention⁽⁷⁾ to the fact that certain bacteria growing in the blood serum of normal individuals may give rise to a positive Wassermann reaction, having found that certain strains of such common organisms as staphylococci and streptococci were capable of producing this result in sera kept at 37° C. for 24 hours. This fact demonstrates the impor-

tance of collecting specimens of blood for this test with aseptic technique, for it was found that, unless the sera were contaminated, positive results were not obtained in non-syphilitic cases, even though the sera might be days or even weeks old.

Besides the factors just mentioned, the result of the test depends upon the amount of blood serum tested, for normal blood will give a positive reaction if enough of it be used and positive sera will be negative if too little be tested. The titration of the complement just before making the test is a part of the technique that must be rigidly adhered to, for the serum of guinea-pigs, which is used for complement, varies greatly in strength and it is most remarkable that this feature of the technique is ignored in many laboratories, which must lead to erroneous results.

If it be remembered that the Wassermann reaction is pre-eminently a quantitative one, the importance of the titration of the various elements used becomes at once apparent, and the failure to accurately titrate these substances explains many of the contradictory reports regarding the value of the test found in the literature.

THE PERCENTAGE OF POSITIVE RESULTS IN THE VARIOUS STAGES OF SYPHILIS.—The percentage of positive results that may be expected with this test in the various stages of syphilis is a question of practical importance to the general practitioner. This percentage varies very slightly as given by different investigators, a fact which speaks well for the accuracy of the Wassermann test in the hands of different workers. My own experience is practically the same as that of others and I will here give the results I have obtained in 5,000 cases of syphilis that I have personally tested:

TABLE 1. RESULTS OF THE WASSERMANN TEST IN 5,000 CASES OF SYPHILIS.

Stage.	Total Cases.	Positive.	Negative.	Per Cent
				Positive.
Primary	947	845	102	89.2
Secondary	1969	1894	75	96.1
Tertiary	680	596	84	87.6
Latent	1354	940	414	69.4

Congenital	28	25	3	82.2
Parasyphilis	22	15	7	68.1
Totals	5000	4315	685	86.3

It should be remembered, in considering these results, that only one test was made in practically 99 per cent of the 5,000 cases, and it is undoubtedly true that had repeated tests been made the percentage of positive results would have been considerably higher in all stages of the disease. However, for practical purposes, it may be stated that we may expect about 10 per cent of negative results with this test in the primary stage of syphilis; about 5 per cent in the secondary stage; about 12 per cent of negative results in the tertiary stage; and 30 per cent in the latent cases. Therefore, the test is of greatest value in the primary and secondary stages of the disease, so far as percentage of positive results is concerned, but clinically it is in the latent stage, when no symptoms of infection are present, that the Wassermann reaction is often of greatest service to the general practitioner.

THE DATE OF APPEARANCE OF THE REACTION.—If there is one thing that modern research in the therapeutics of syphilis has taught us, it is that the earlier treatment is instituted the better are the results. Therefore, any measure that will render a diagnosis certain before the appearance of secondary symptoms, should be of the greatest value. The ideal method of diagnosing syphilis in the primary stage is the demonstration of *Spirochæta pallida*, the causative organism, by the dark field apparatus, but the general practitioner is not often supplied with this instrument, nor has he time to attempt the demonstration of this organism by staining methods. However, the Wassermann test is a most efficient diagnostic aid during this stage of syphilis, and the statements of those who regard it of small value are contradicted by the fact that nearly 90 per cent of primary cases of syphilis, in my experience, give a positive reaction before the appearance of secondary symptoms. While it has been stated that the reaction seldom becomes

positive much before that time, this has not been my experience, as shown in the following table:

TABLE NO. 2.—DATE OF APPEARANCE, IN WEEKS, OF THE WASSERMANN REACTION IN 575 CASES OF PRIMARY SYPHILIS.

Week After Appearance of Chancre.	Total Cases.	Positive.	Negative.	Per Cent
				Positive.
First week	76	26	50	34.2
Second week	149	86	63	57.7
Third week	151	102	49	67.5
Fourth week	159	121	38	76.1
Fifth week	40	32	8	80.0

A study of this table shows that no less than 34 per cent of primary cases, during the first week after the appearance of the initial lesion, gave a positive reaction; over 57 per cent by the end of the second week; 67 per cent by the end of the third week, and 76 per cent by the end of the fourth week after the appearance of the chancre. These results prove conclusively the value of the test in the diagnosis of syphilis during the primary stage and the physician who neglects to avail himself of its use in a suspected case may place his patient in such a position that a cure of the infection will be impossible, for it has been absolutely demonstrated that the percentage of cures, even with our most approved methods of treatment, is greatest in those treated before the appearance of secondary lesions. Modern research has taught us that any sore upon the penis is suspicious and that a very large percentage of cases diagnosed as chancroid are in reality infections with syphilis. The Hunterian chancre has been shown by recent study to be almost as much the exception as the rule, and today the best students of syphilis admit that it is impossible, in many instances, to make a diagnosis of the disease from the character of the lesion on the penis. In view of these facts, the importance of testing the blood of every patient presenting a lesion on the penis is apparent, and the neglect of this procedure is often followed by disastrous results.

THE INTERPRETATION OF THE RESULTS OF THE TEST.—I have previously considered in detail the interpretation of the re-

sults of the Wassermann test, but wish here to call attention to the most obvious features of such interpretation. Many misconceptions have arisen in the profession regarding the exact value to be attached to the various reactions reported, with the result that a single negative result has often been considered as definitely excluding syphilis, while the diagnosis of the disease has been made upon a plus-minus or plus result, even in the absence of a history of infection. Various systems are used in recording the results of a Wassermann test, and the practitioner should thoroughly understand the system used by the laboratory to which he sends his tests. Thus some workers classify their results as four plus (+++), three plus (+++), two plus (++), plus, (+), and negative, while others employ a more simple classification. In the army we use four designations for the reaction: double-plus (++), indicating complete inhibition of hæmolysis, and thus a positive reaction; plus (+), indicating anything between complete inhibition and 50 per cent of inhibition; plus-minus (+-), indicating anything between 50 per cent of inhibition and complete hæmolysis, and minus (-), indicating complete hæmolysis. Plus and plus-minus reactions are always doubtful in the absence of a clear history of infection or of definite symptoms of the infection.

The following rules should govern the interpretation of the results of the reaction, as shown by our experience:

1. If the diseases other than syphilis, that have occasionally been found to give a positive reaction with the Wassermann test, can be excluded, a double-plus reaction (absolute inhibition of hæmolysis) is diagnostic of syphilis. Under such conditions I consider this type of reaction as absolutely specific, whether symptoms are present or not, and whether there is or is not a history of infection.

2. Under the same conditions a plus reaction may, in primary, tertiary, and latent infections, be interpreted as diagnostic, provided there is a clear history of infec-

tion or clinical symptoms are present. In the absence of either history or suspicious symptoms a plus reaction should never be considered as diagnostic.

3. A diagnosis of syphilis should never be made upon a plus-minus reaction. Many normal individuals give such a reaction and it is of no value whatever as a diagnostic sign of syphilis, and of very little value as a guide to treatment.

4. A single negative reaction is of little value in excluding syphilis. That this is so is clearly demonstrated in the results of our experiments upon the variations in the strength of the blood serum of undoubted syphilitics. Only when a negative reaction is repeatedly obtained in cases where there are suspicious symptoms or a history of infection can it be considered as good evidence of the absence of syphilis. In treated cases that have given previously a positive result, a single negative reaction is no evidence of cure; it should be repeatedly negative over a long period of time and in such instances a Wassermann test should be made upon the cerebrospinal fluid. A luetin test and a provocative Wassermann test should also be made before a patient is told that he is free from the infection.

CONCLUSION.—In this brief paper I have not touched upon many other points regarding the Wassermann test that are of practical importance to the physician. The great value of this test as a control of our treatment of syphilis has been emphasized by its use in the army, where every soldier undergoing anti-syphilitic treatment is repeatedly tested. Only in this way can we judge of the efficacy of any method of treatment, for the test has definitely proven that the absence of symptoms is no proof that the infection is cured. The physician who deludes himself into the belief that absence of symptoms in this disease indicates that the treatment he has employed has resulted in cure is most unfortunate and his patients still more so. As long as a positive Wassermann reaction is present in a patient's blood, just so long is he a victim of syphilitic infec-

tion, even though he may have had no symptoms for months or years. There is no use in trying to evade this fact, terrible as it is, and while such patients may not be infective to others, they are not cured of the infection.

We have no accurate statistics regarding the prevalence of syphilis in the general population of this country, but the recent work of Captain Vedder⁽⁹⁾ has shown that of accepted recruits for the army, about 8 per cent give a positive Wassermann reaction, while, if plus reactions be considered as positive, 16 per cent of the men who pass the physical examination for the army are infected with syphilis. When it is considered that these men have actually passed a rigid physical examination and have no symptoms of syphilis except the positive Wassermann reaction, one can at least suspect that the percentage of syphilitics in the general population is probably as great, and from this fact one may deduce the conclusion that very many syphilitic infections are never discovered, and, in fact, may not even be suspected by the patient himself, for a very large proportion of undoubted syphilitics give no history, or, at best, a very vague history of infection. I am convinced that if a Wassermann survey were made of all of the inhabitants of any of our larger towns or cities the result would be astounding as regards the number of such infections present and would illustrate the very great value of the test in the diagnosis of the disease.

I would like to discuss the great value of this test in the diagnosis of obscure conditions affecting the nervous system and its use in the diagnosis and study of paresis and locomotor-ataxia, but time forbids. Suffice it to say that it has illuminated the darkness in which these conditions were shrouded for centuries and that today we are well aware of their syphilitic nature.

In conclusion it may be stated, that despite all of the adverse criticisms that the Wassermann test has received, it stands today as one of the most valuable of all diagnostic measures and the physician

who neglects its use is doing an injustice to both his patients and himself, for both the diagnosis of syphilitic infection and the control of its treatment rest, today, upon the results of serological examinations.

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Appendicitis Complicating Pregnancy, Labor, and Puerperium, with Report of Four Cases.

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This is a condition that has been considered clinically for only a comparatively short time.

In 1759 Mistivies reports a case, but the record is not authentic.

Stumpf, in 1836, revealed a case of appendicitis of the puerperium at autopsy.

In 1848, Hancock lanced a perityphlitic abscess in a woman five months pregnant. The patient recovered.

F. H. Wiggin, in 1892, diagnosed a case and was the first to advise operation. The operation was refused and the patient died. The diagnosis was confirmed at autopsy.

Our real knowledge of the subject dates back to 1894, when Paul F. Munde, of New York, reports the first successful operated case. The woman bore a dead child in the eighth month of her pregnancy, and operation followed six days later. A perforated appendix with a walled off abscess was found. The patient recovered.

Abrahams, in 1897, added fifteen cases to the then scanty literature, and there has been a rapid increase in the number

of reported cases from then on.

FREQUENCY.

There is no good way of ascertaining the frequency of appendicitis complicating pregnancy and the puerperium at the present time. However, it will probably outnumber any of the so called classical complications, such as eclampsia, placenta prævia, ectopic gestation, etc.

Myers, in 1906, collected 143 cases.

D. C. Hilton, in 1907, collected only 23 cases of appendicitis in the puerperium.

Babler, in 1908, collected 235 cases in pregnancy and puerperium.

Palmer Findley, in 1912, added 15 cases from his own practice.

J. B. Murphy, in 1904, reported 2,000 cases of appendicitis but did not mention the complication with pregnancy.

Frederick Treves, in 1905, reported 319 appendectomies in women, with six of them pregnant.

Van Ordt, in 1905, said he had observed the complication in only three out of 10,000 cases of pregnancy at the Rotterdam Maternity.

In nine years at Mt. Sinai Hospital, ending in 1907, in 731 cases of appendicitis in women, nine were in pregnancy.

Lobsteine reports on five cases of appendicitis in 30,000 cases of pregnancy in the New York Lying-In Hospital and Dispensary.

Norris reports six pregnancies in 445 women operated on for appendicitis.

In 1,800 appendectomies, Baldwin reports six pregnancies.

Vineberg saw nine pregnancies in 731 appendectomies.

Fränkel reports five pregnancies in 40,000 appendectomies, and Von Enselberg 13 pregnancies in 520.

I have been able to collect 633 cases, mostly from the American literature, with complete case records of 493 cases.

H. H. Schmidt, of Vienna, collected 485 cases in 1911, and comes to the conclusion that 1 per cent of all pregnant women have appendicitis, and that 2½ per cent of women having appendicitis are pregnant.

The disease is much more common than the reported cases would indicate, as many cases occur which are not reported and the condition is undoubtedly often overlooked because the symptoms and signs in many cases are not sufficiently pronounced to lead to careful investigation or are classed among the various disturbances which are so frequent in the pregnant condition. The fact that salpingitis and ovaritis are much more commonly diagnosed on the right side than on the left would suggest that the appendix might be involved and frequently pass undiagnosed. The great majority of reported cases have been those in which the phenomena have been distinctive or alarming. Ascribing death to puerperal sepsis has probably buried great numbers of cases of appendicitis of the puerperium.

ETIOLOGY OF APPENDICITIS IN PREGNANCY.

When we consider the fact that only one-third of the cases of appendicitis occur in women, when we realize that the child-bearing period of the modern woman is only a few years; the pregnant condition nine months and the puerperium a matter of days; and if we accept the statement of H. H. Schmidt that 1 per cent of pregnant women have appendicitis and that $2\frac{1}{2}$ per cent of women with appendicitis are pregnant, then we must search for the etiology of the condition other than in those places where the cause of appendicitis is usually found.

With the possible exception of Hala-wacek, all writers are of a uniformity of opinion that pregnancy does not incite a primary attack of appendicitis.

It should be borne in mind, however, that the majority of cases of appendicitis occur between the ages that limit the child-bearing period. Constipation, which is ascribed a possible cause of appendicitis in the non-pregnant state, is usually much increased by pregnancy.

It is with equal uniformity that writers agree that pregnancy can and does cause a recurrence of appendicitis, and excites chronic appendicitis to acute exacerbations.

With the growth of the uterus in preg-

nancy, the cæcum and appendix are gradually lifted out of their normal position to several fingers below the liver, the appendix loses its natural protectors, the intestine and the omentum, and the normal relations of the abdominal contents are greatly disturbed. The havoc that may be wrought in walled-off abscesses and adhesions can easily be imagined.

There is an increased vascular engorgement in pregnancy. There is a greater tendency to intestinal toxemia as evidenced by the relative frequency of pyelitis of intestinal origin.

The occurrence of appendicitis after labor is in some cases undoubtedly due to the mechanical changes in the uterus and adenexa. Under these circumstances an appendix may be stretched, twisted, or even ruptured. Miscarriages and labor scatter infectious material about.

Some of the lists of reported cases indicate, to an alarming degree, the effect of pregnancy on women who have previously had appendicitis. For examples, in the fifteen cases that Findley reports, all but one had had appendicitis previously. Fellner claims that in a review of 38,000 cases of appendicitis, a return of the condition during pregnancy was observed in all cases where it had previously existed, with one exception.

REVIEW OF CASES.

In the 493 cases I reviewed, 396 occurred during pregnancy and 97 in the puerperium. The total death rate was 23 per cent. Two hundred seventy-eight of the cases were suppurative. These cases had a death rate of 38 per cent. The 215 non-suppurative cases were mostly of the mild catarrhal type and the mortality was 2.8 per cent.

I have separated those cases which occurred in the puerperium from those occurring in pregnancy, and have divided those where the period of pregnancy was definitely stated into those occurring in the first half and those in the last half of pregnancy. In all groups the cases are divided into suppurative and non-suppurative types.

The first group, the suppurative cases in the first half of pregnancy contains 16 cases. Fifteen of these were operated on and nine recovered, the mortality being 40 per cent. The one unoperated case died. Abortion occurred in 55 per cent, it being recorded in 13 cases.

The non-suppurative cases of the early pregnancy group include 12 cases, of whom nine were operated on and three were not. All recovered. Abortion occurred in 10 per cent.

The second group, or those occurring in the last half of pregnancy, contained 20 cases. Twelve of these were of the suppurative type, all of which were operated on. Nine recovered and three died, the mortality being 25 per cent. In 50 per cent of the cases, abortion or death of the foetus took place. The non-suppurative cases are eight in number, one of which was operated on. All eight cases recovered. Abortion or death of the foetus took place in 62 per cent.

The third group, those in which the time of pregnancy was not stated definitely, included 348 cases. Of these 181 were suppurative and 167 non-suppurative. Operation was performed on 157 of the 181 suppurative cases, of which 115 recovered and 42 died, the per cent of deaths being 27. Of the 24 unoperated cases, 21 died and three recovered, the mortality being 88 per cent. One hundred eighty cases of this group were found in which the records were too incomplete to classify but in which abortion or death of the foetus was noted. In the total 301 cases thus obtained the foetus was lost in 60 per cent.

Of the 167 non-suppurative cases of this group, 68 were operated on, of which only one died, the death rate being 1.5 per cent. Of the 99 unoperated cases five died, the percentage being 5.5. Record of abortion or death of the foetus was obtained in 291 non-suppurative cases of this group. The foetus was lost in 25 per cent.

The fourth group consists of the cases in the puerperium, which number 97. Sixty-nine of these cases were suppurative

and 28 non-suppurative. Of the 69 suppurative cases, 49 were operated, of which 32 recovered and 17, or 35.5 per cent, died. Of the 20 non-operated cases, 14 died and six recovered, the death rate being 70 per cent. Of the 28 non-suppurative cases, 12 were operated and 16 were not. All recovered.

Totalling, in the suppurative cases, the death rate was 29.7 per cent in the operated cases, and 80 per cent in the non-operated cases. In the non-suppurative, the fatality was 1.1 per cent in the operated cases, and 4 per cent in the non-operated cases.

The record of abortion or death of the foetus was obtainable in 628 cases, occurring in 40 per cent.

During the last 15 months I have had four cases of appendicitis in pregnancy in my own practice.

During March, 1914, I was called to see Mrs. C., living in Rice, Kansas. Age 30, multipara, history negative. She was suffering from an acute appendicitis of about 36 hours standing. As she was nursing a small child, pregnancy was not suspected or considered. Immediate operation was advised and the patient was taken to the hospital and a gangrenous appendix removed. Recovery was uneventful and six months afterward she was delivered of a healthy boy baby.

In July, 1914, I was called to see Mrs. P., age 22, primipara. She claimed to be three or four months pregnant. Forty-eight hours before she had been seized with severe abdominal pain and vomiting. When I saw her she had a temperature of 101, muscular rigidity on the right side, and pain over McBurney's point. Operation was refused. Dr. Beach was called in consultation, and operation was finally agreed to. She was taken to the hospital on July 7, the sixth day of the disease. A large circumscribed abscess and a perforated, gangrenous appendix were found. What remained of the appendix was removed, and the abscess drained. The wall of the abscess did not involve the uterus. A rapid and uneventful recovery ensued

and pregnancy proceeded to term, when she was delivered of a healthy boy baby.

In September, 1914, Mrs. T., a physician's wife, was brought to the hospital on the fourth day of what was diagnosed as appendicitis. The case was a recurrent attack. She was a multipara, 34 years old, and four months pregnant. As her symptoms were abating, operation was delayed. On the sixth day of the disease, uterine pains started up, and abortion followed. The patient recovered in a short time and has not been troubled since.

My fourth case is Mrs. A., wife of a Baptist minister. I saw her first on July 12th, when she was three months pregnant in her second pregnancy, and suffering from her first attack of appendicitis. Immediate operation was advised, but was refused, and the patient was put on Ochsner's treatment. Symptoms abated in three or four days. She was a multipara, 29 years old, and previous history negative. Some time during September she had a mild recurrent attack, and on November 8th had her third attack. She had a pulse of 120, temperature 102, and developed extreme tenderness and rigidity in the region of the appendix. These symptoms lasted about a week, when the vomiting and fever subsided, the pulse remaining high. At this time there developed a mass as large as an orange between the uterus and ilium. Operation was not consented to until the symptoms had begun to subside. As this was the eighth month of her pregnancy, we advised delay with the provision that an operation be performed immediately upon the recurrence of symptoms. On December 30th she was delivered of a living girl baby. On January 19th, 19 days after labor, she was taken with vomiting and severe pain and tenderness over McBurney's point. The temperature was moderate but pulse rapid. An immediate operation was performed, and the patient was relieved of a gangrenous appendix, bound down in a mass of adhesions, corresponding to the mass found after her third attack. Her recovery was uneventful.

PROGNOSIS.—In all cases the prognosis for both the mother and foetus is poor, and the outlook is a gloomy one.

It is generally conceded that appendicitis complicating pregnancy and the puerperium runs a more rapid and destructive course than in the non-gravid state. Two hundred seventy-eight of the 493 cases I collected had gone on to suppuration. Heaton says, "owing possibly to the increased blood supply, and the congestion of the parts due to the pressure of the enlarging uterus, cases of appendicitis in pregnancy seem to run an unusually rapid course. Though some subside, the majority, if left, seem to go on to suppuration."

The mild catarrhal types of inflammation run a fairly favorable course, although in those cases which do not go on to suppuration, over 1 per cent of the operated cases and 4 per cent of the non-operated cases die.

Van Swearington points out a possible cause of death from postpartum hemorrhage on account of the inability of the uterus to contract, being held by firm adhesions. The case cited was a woman, who, when six months pregnant, had a mild primary attack of appendicitis. She was confined to her bed for a day only and did not consider herself sick enough to consult a doctor. Her history previous to this time was negative. She had no further trouble until contractions began. During the puerperium she had a chill and high fever, which subsided in a few days, and some time later a mass was discovered in the right iliac fossa. Operation revealed the mass to be an enormous prolongation of the uterus on which was cemented the appendix, ileum, and cæcum, the whole being covered with adherent mesentery.

However, it is the suppurative cases that are of such doubtful prognosis. Coe says, "Perforative appendicitis, occurring during the latter months of pregnancy, is a complication which must always cause great anxiety, whether the pus collection is circumscribed or general." Babler says, "Perforative appendicitis is one of the

gravest complications of pregnancy with which the surgeon has to deal."

Rosmer estimates the mortality at 59 per cent, Heaton at 50 per cent, and Abrahams at 53 per cent. The cases I have been able to collect show it to be 38 per cent. Myer estimates it at 32 per cent, Pinard at 33 per cent, and Boijee at 41 per cent.

No matter what group of cases is taken, the mortality is shockingly high. The foetal mortality is even higher than the maternal mortality. Abrahams believed it to be close to 100 per cent. Heaton said that abortion must occur in all cases where the uterus formed a part of the abscess wall. Van Swearington reports a specific case to disprove this. Coe says the child's chances are practically nil.

However, it is the consensus of opinion among recent writers that mild attacks do not alter the course of pregnancy, but that severe or suppurative attacks will usually result in the interruption of pregnancy, and not infrequently in the death of the foetus in utero.

Davis estimates the latter type at 78 per cent, Boijee at 58 per cent. I have found it 60 per cent in suppurative cases, and an average of 40 per cent in all cases. Vinay, in 52 cases of all kinds, reports abortion in 40 per cent.

Myer says the interference with pregnancy is not due to the operation but is a result of the appendiceal condition itself. He offers, to bear out his statement, 17 cases of chronic catarrhal appendicitis reported by Boijee in none of which pregnancy was interrupted, while in contrast to this there were 26 abortions, or 37 per cent, following operations for abscesses, and 11 cases, or 16 per cent, where abortion occurred before operation.

Thomason ascribed the cause to the continued high fever, while Coe thinks it is more probably due to direct infection through the umbilical vessels. Other reasons ascribed are general sepsis, toxemia, and irritation caused by adhesions interfering with the growth of the uterus.

DIAGNOSIS.—There is considerable differ-

ence of opinion as to diagnosis of appendicitis during pregnancy and puerperium. The majority, however, say that it is as easy as in the non-pregnant condition. Especially is this true in well marked cases.

In early months, it must be differentiated from vomiting of pregnancy, threatened abortion, ectopic gestation, and tubal tuberculosis. It may be said of all those cases where the leucocyte count is sufficiently striking to be of any value, that the diagnosis can be made from other clinical manifestations.

In the latter months of pregnancy the enlarged uterus destroys, to a great extent, localized muscle rigidity in appendicitis. The pain is apt to be referred to the region of the liver, due to the appendix and cæcum being raised higher in the abdomen. Appendicitis must here be differentiated from various conditions of the liver, from pyelitis, typhoid, and ovaritis. There may be a slight leucocytosis in typhoid in pregnancy due to the pregnant condition.

The severe cases occurring during labor or the puerperium or during abortions caused by them are very apt to be mistaken for puerperal sepsis. A careful physical examination and a carefully taken history ought to differentiate in the vast majority of cases.

Ovarian cysts with distorted pedicles, or other abdominal tumors, may be mistaken for abscess formation.

Pinard suggests that the appendix be taken as the offending organ in all cases where there is right-sided pain.

TREATMENT.—When we compare the 88 per cent mortality in unoperated suppurative cases to the 26 per cent in operated cases, and the 1.5 per cent in the non-suppurative operated cases to the 5.5 per cent in the unoperated, the best line of treatment is both obvious and striking.

Paul Munde, in 1894, in discussing his case, the only one known to him, said, "I think that in a future similar case I would open the abdomen at once as soon as a reasonable probability of its existence could be settled, without reference to the impending or completed delivery." He reached

the same conclusion from one case that has been reached from hundreds.

The danger of the condition increases with the length of pregnancy and with the length of the disease. The mortality in the total operated cases that I collected is 21.4 per cent. Wagner estimates that where operation is done in the first 48 hours it is only a little over 6 per cent.

In cases in the first half of pregnancy or during the puerperium, there can be no discussion of treatment. Operate immediately. The danger of the operation is too small and the danger of delay is too great to indicate anything else. Babler very aptly says, "The mortality of appendicitis complicating pregnancy is the mortality of delay."

In cases that go on to suppuration, and two out of every three do go on when the condition complicates pregnancy, six out of every seven die when operative treatment is denied, and nearly one out of every three when operation is performed. Yet when it is done in the first 48 hours, this falls to one in twelve. Murphy says the percentage is still too high because it represents cases operated in the first 48 hours instead of the first 24 hours, as they should be operated.

To be able to operate early means that it is necessary to make a diagnosis early. The question is, just how early can the diagnosis be made. Pinard's suggestion that the appendix be considered the offending organ whenever there is a right-sided abdominal pain, would probably be true in over 90 per cent of cases. J. B. Murphy insists that the diagnosis can always be made in the first 24 hours, with the possible exception of a differentiation of an acute appendicitis and a tubal pregnancy, and adds that the early operation for tubal pregnancy, before rupture and hemorrhage occurs, has not even the mortality that the operation for an ordinary appendiceal infection has.

It is just as possible that a case could arise where it would be impossible to differentiate early between typhoid and appendicitis in pregnancy as in the non-

pregnant condition.

When appendicitis complicating pregnancy puts the patient's life in such great jeopardy, and so much depends upon the surgeon's treatment, it seems to me that the best plan would be to use all available methods to form a correct diagnosis, and then, when in doubt, operate.

The technique for the operation need not be altered. The patient should be completely under the anæsthesia before incision is made, thereby inhibiting reflexes and lessening chances of abortion. The tissues should not be handled more than is absolutely necessary. Do not attempt to bring the intestines into the wound. Get rid of the appendix and then get rid of yourself.

In the puerperium the need for avoiding all delay is nearly as urgent. The mild septicæmia of early appendicitis, while not so harmful in the ordinary case, will work great harm in the puerperium. If an acute or suppurative case is left to run its course, the micro-organisms in the blood are arrested at the placental site in the uterus. From the infected endometrium and myometrium, the infection spreads into the uterine veins, a septic thrombophlebitis develops, possibly with pyemia, and then the patient dies. A delayed operation changes the picture but little.

I have purposely not discussed, as yet, those cases in the last half of pregnancy, because the treatment in all cases is not so evident. Hirst, in 1906, said, "I would strain a point in late gestation to defer operation until after delivery." I do not know whether he has changed his mind or not.

The arguments for conservative treatment seem to resolve themselves into the following: That the operation at this stage is more difficult from a mechanical standpoint, that there is more danger of irritating the uterus to the point of abortion or premature labor, and that the abdominal wall is left in a poor condition for the woman to go through labor.

The mere fact that a case presents a

more difficult surgical problem is no reason that surgical treatment should be delayed. The most extensive surgical procedure will not cause abortion or premature labor as frequently as the resulting toxemia and sepsis of a case that is "observed." The mortality of suppurative cases is as high here as elsewhere.

In consequence of the intense congestion and increased abdominal pressure, the disease is likely to run a rapid and riotous course. The appendix is deprived of the omentum and intestine. When suppuration occurs, it is not easily walled off, but

a septic condition of the peritoneal cavity will follow, a high grade septicæmia will result, abortion or premature labor be brought about, and then the usual sequela.

We do not know what will take place in ten, twenty, or forty hours after the onset of appendicitis. We cannot foretell what cases will be suppurative and what will not. I think that a watchful waiting policy should be condemned as much here as in earlier pregnancy.

There is a possible exception. If the woman is quite late in pregnancy and the case is not seen by the surgeon or obstetrician until late in the disease, it has not gone on to suppuration and the patient is recovering, then it might be well to postpone operation until after delivery, with the understanding that at any recurrence of symptoms, an immediate operation is to be performed.

As a prophylactic measure all women who have appendicitis during their child-bearing age should have their appendices removed. The frequency of recurrent attacks is so great, and the mortality so high, that the welfare of the patient is best served when the appendix is out.

CONCLUSIONS.—I think the facts admit the drawing of the following conclusions:

1. That appendicitis is one of the gravest complications of pregnancy and the puerperium, with which the surgeon has to deal.

2. That the complication occurs more frequently than the reported cases would indicate, and at least once in every hundred pregnancies.

3. That the pregnant condition is directly responsible for recurrent attacks.

4. That the appendicitis runs a more rapid and destructive course in pregnancy and the puerperium, than it does in the non-gravid state.

5. That the diagnosis is not more difficult than at other times.

6. That the treatment is immediate operation in all cases, with the possible exception of those late in pregnancy that are already recovering when first seen.

7. That after using all available meth-

	Operated			Not Operated			Abortion or Death of Foetus		
	Died	Recov- ered	Mortality Per cent	Died	Recov- ered	Mortality Per cent	Plus	Minus	Per ct.
Early Pregnancy, Suppurative	6	9	40	1	0	100	7	6	55.5
Early Pregnancy, Non-suppurative	0	9	0	0	3	0	1	9	10
Late Pregnancy, Suppurative	3	9	25	0	0	0	5	5	50
Late Pregnancy, Non-suppurative	0	1	0	0	7	0	5	3	62.5
Time of Pregnancy not definitely stated:									
Suppurative	42	115	26.7	21	3	88	182	119	60
Non-suppurative	1	67	1.5	5	94	5½	57	234	25
Puerperium, Suppurative	17	32	35	14	6	70			
Puerperium, Non-suppurative	0	12	0	0	16	0			
Total	69	254	21.4	41	129	24.4	257	376	40.7

ods to arrive at the correct diagnosis, when in doubt, operate.

8. That all women in their child-bearing age, who have had appendicitis, should have their appendices removed as a prophylactic measure.

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Torsion of the Pedicle of an Ovarian Cyst Simulating Ruptured Extra-Uterine Pregnancy.

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The case in question is a well-nourished lady 22 years of age. Family history negative, with the exception of the ordinary diseases of childhood—measles, mumps and chickenpox. Urine negative. She had been married three months and was in splendid health when she was suddenly seized with agonizing pain in right lower abdominal quadrant. She fainted and a small amount of blood oozed from the uterus, enough to stain her clothes. A physician was called and ascertained that she had missed two menstrual periods. The flow from the uterus had stopped but the agonizing pain in the right side continued. On bimanual examination, abdomen flat and tender over brim of pelvis, no muscular rigidity. No vomiting and no temperature. Vaginal examination revealed a mass to the right of the uterus, movable and tender, moving with the uterus but not firmly attached, uterus enlarged and in normal position. The doctor made a diagnosis of a ruptured extra-uterine gestation and moved patient to hospital, advising immediate operation. I saw her half an hour later and concurred in his diagnosis. Not getting a history of any previous pelvic trouble we did not think of ovarian cyst.

Usually in cases of ovarian cysts with twisted pedicle it is possible to get a his-

tory of some pelvic inflammation, such as pus tubes, pelvic cellulites, appendicitis, typhoid, peritonitis, or an accidental discovery of a mass. In many cases the history of such a peritonitis is so remote that the existence of the same must be ascertained from the parents, as it might have occurred during early childhood.

Most all pelvic inflammation will leave the ovaries covered with connective tissue which will favor retention cysts in the Graafian follicle, and with serum secreting from the lining of these follicles produces the nucleus of a cyst. The predisposing factors to torsion of the pedicle are: A long pedicle, changes in the intra-abdominal pressure, movements resulting from physical exertion or rolling of the mass during examination, abdominal ascites in which the tumor is carried by the change of position of the fluid. Twisting of the pedicle interferes with nutrition and a multitude of conditions follow, such as œdema of the pedicle, venous engorgement, gangrene and hemorrhage into the cyst or abdominal cavity which may cause an acute anemia or death. We could ascertain no history of any pelvic trouble.

SUMMARY.—With the sudden onset of pain, the history of missing two menstrual periods, the mass in the side, the hemorrhage from the uterus, all point to an extra-uterine gestation. The main feature in the history up to this time is the pain and collapse. Sudden overwhelming agonizing pain is caused by the rupture of some internal organ, or by a ruptured extra-uterine pregnancy, or a perforated gastric ulcer, although the collapse is not so great in gastric ulcer. The uterus in cases of extra-uterine pregnancies is not normal in size but rather enlarged, soft and boggy, with a mass situated to either side, with menstrual disturbances of some degree either irregular or suppressed; suppression was the condition in this case.

A tubal pregnancy must terminate in one of two ways, either by tubal abortion or tubal rupture, tubal abortion being the most common one, and this procedure sometimes spontaneously cures the patient.

But in tubal rupture with blood flowing into the free peritoneal cavity is quite a different affair; some surgeons prefer to wait in this condition, if shock is profound, till the patient rallies. If this is decided on, an ice pack should be placed over the lower abdomen, morphine to insure complete relaxation and quietude, and by no means should stimulants be administered, as this increases the hemorrhage by raising the blood pressure. If these cases are seen early, operative interference can be undertaken with but little danger. Seeing the case early as I did we lost no time in doing an abdominal section. On opening the abdomen there was considerable free blood and many clots, the blood was still flowing from the ruptured vessel at the top of the dark mass which was about the size of an orange. On raising the mass, which was not adherent, it was easy to determine its nature: an ovarian cyst with a twisted pedicle, being twisted two and a half times. Both tubes and left ovary being normal and the uterus enlarged, this with the regular symptoms of pregnancy, we did as little manipulating of the uterus as possible, fearing possibility of pregnancy. The mass was removed, also clots and blood as best we could, and the abdomen closed with drainage. The patient made a good recovery and in a little over seven months gave normal birth to a seven-pound boy.

This case was puzzling and interesting, and a diagnosis of tubal gestation I think permissible owing to the classical symptoms. And one would scarcely think of a torsion of an ovarian pedicle under these circumstances.

—————R—————

Bilateral Ovarian Sarcoma in a Child Five Years Old with a Large Retro- peritoneal Metastasis.

HUGH WILKINSON, M.D.

First Lieutenant M. R. C., U. S. A. Surgeon to Bethany Hospital, Kansas City, Kansas.

The case herein reported seems unusual enough to warrant me placing it on record. Tumors of the ovary of course are common enough, but sarcoma, according to

reliable statistics, is found only once in twenty of ovarian newgrowths. This is in all ages. The greatest number of these sarcomas are found in early adult life. However if we take ovarian tumors of all varieties in children under five years from which to compute, we will find 50 per cent of them to be sarcomas. Both ovaries are affected in 11 per cent of the cases. The point to note here is: In operating for ovarian disease if malignant disease is found on one side great care should be taken to exclude malignancy on the other side before deciding on a unilateral operation. This is especially true when we consider that carcinoma comprises 15 per cent of all ovarian newgrowths and that 46 per cent of these are bilateral. In the case we are writing about none of these points had to be considered because both sides were plainly involved and we had an inoperable metastasis.

The patient was a girl five years old referred by Dr. Edward Asbell of this city. Family and personal history unimportant. She was first seen by me February 3, 1915. One week before this date the parents noticed a mass developing in the lower abdomen to the left of the median line. There were no symptoms referable to the mass, but at this time she had been suffering two or three weeks with an acute cough and was somewhat run down, presumably from the cough, which we considered not connected with the disease below, although we had in mind the possibility at this time of a malignant disease with lung metastasis.

FINDINGS FEBRUARY 3, 1915.—A small hard quite movable growth the size of an egg rather irregularly ovoid situated to the left of the median line below the navel. It could be moved rather freely laterally but less so vertically. There was very little tenderness. This was considered an unusual affair and undoubtedly surgical, but on account of the cough we delayed further investigation until this could be cured. They were advised this way and instructed to then bring the child to the hospital for further examination and oper-

ation if that was then deemed advisable.

February 17, 1915: The child was brought to Bethany Hospital. Her cough had been gone for several days and her general condition was considerably improved.

GENERAL EXAMINATION.—Appearance pale and skin of a waxy color. Heart, lungs, urine and blood normal except that the blood showed 80 per cent hgb.

ABDOMINAL EXAMINATION.—A growth present in left side of abdomen extending upward from the pelvis well above the navel. The mass was the size of an adult human kidney and similar in shape but somewhat nodular. It seemed at least two or three times larger than the mass we had felt two weeks previously. It was somewhat movable but not so much so as when seen before. Slightly tender. The fingers could be pressed below it fairly well and palpation also separated it distinctly from the right kidney and splenic region. Dull on percussion. In the right lower quadrant another growth distinct from this large one was now evident. It was the size of a very small egg, smooth and quite movable. There was no evidence of fluid in the peritoneal cavity. During 24 hours observation she had at times a temperature up to 99.5.

OPINION GIVEN.—That she had a very malignant growth of unknown origin and character. Prognosis extremely bad. I would operate only in an exploratory way to see if anything could be done and do it if possible or advisable.

OPERATION.—February 18, 1915, after refusing the operation the day before, the parents brought the child in and asked me to operate as I had suggested.

ANAESTHETIC.—Ethyl chloride-ether. Incision, rectus. Peritoneum smooth and uninfamed but considerable clear sticky fluid. No blood. The large mass proved to be a retroperitoneal growth (metastasis) and about as described before operation. Below, in the pelvis we found a bilateral growth of the ovaries which was quickly ligated and removed on both sides, not in the hope of cure, of course, but for me-

chanical and pathological reasons.

DESCRIPTION OF GROWTHS.—Left side, smooth, size of a bantam egg, very soft, non-adherent, it seemed to grow like an immense nodule from the ovary which itself did not seem to be diseased. Tube normal. Right side, similar to the left but two or three times it in size and more irregular in outline. In trying to deliver this tumor with what I am sure was not undue force it broke in several pieces and tore from its pedicle, it was so soft and friable.

Wound closed as usual with no drain. Operative recovery good.

PATHOLOGICAL EXAMINATION.—Sections made of the growth by Dr. Wm. McDougall showed the growths to be small round-celled sarcoma.

Later: Child was treated by a grafter for some weeks and died in about two months from the time we operated on her.

—R—

Nitrous Oxide-Oxygen Anaesthesia.

GEO. C. MOSHER, M.D., Kansas City, Mo.

An effort has been recently made to introduce nitrous oxide-oxygen anaesthesia in the Kansas City General Hospital. Having noticed in the Journal of the American Medical Association the letter of Dr. James F. Baldwin, of Columbus, Ohio, requesting information as to deaths from nitrous oxide-oxygen, a number of letters was written by members of the hospital staff to surgeons and obstetricians in the great clinical centers asking an expression of opinion based on personal experience with the gas, before concluding as to the safety of the combination.

No doubt can be felt after these letters that the conclusion of Dr. Arthur Dean Bevan as expressed; the Journal A.M.A. October 23, 1915, is correct, 'Nitrous oxide in the hands of the tyro is a most dangerous anaesthetic.' Dr. Ochsner writes he used the combination in one hundred cases and then gave it up, as he considers the advantages simply in the way of advertising,—that the effects are psychical. In common with nearly all the surgeons from whom reports are had he considers ether

by the open method the ideal safe anaesthetic.

Dr. Charles H. Mayo writes he concludes nitrous oxide in general hands more dangerous than chloroform when it was given up at the Rochester clinic. Dr. Baldwin writes that he has notes of fifteen deaths from this combination in Columbus alone and a number of others are said to have occurred in Cleveland, Cincinnati, Baltimore and Nashville and here in Kansas City. If these reports are the facts and if there exists as Dr. Baldwin says "a conspiracy of silence among anaesthetists to cover up their nitrous oxide deaths" because the popularity of the method in hands of some of the best operators with highly trained anaesthetists has caused the method to be attempted by those without training and disaster has followed, it is fortunate that Dr. Baldwin has set out in his investigation and the results should be given the widest professional publicity in the interests of both patient and operator.

Dr. A. R. Warner, of Lakeside Hospital, Cleveland, believes the mortality is due not so much to method as to the impurities in the gas, and they hope to make it safer by a process of purification which he has devised for the removal of halogen acids.

It would seem that the question to be determined is not what results a brilliant surgeon like Dr. Geo. W. Crile reports nor whether Dr. J. Clarence Webster, a distinguished obstetrician with the best trained anaesthetists has any mortality. What is the death rate from the average clinic or in the practice of the physician who is handicapped doing his work without the refinement of equipment of the great hospitals? If death occur with such startling frequency as has been claimed no further discussion is necessary.

—R—

In the advertising pages will be found a bargain list of supplies now being offered by the Physicians' Supply Co. This company announces that it will not hereafter handle any second hand goods and is now making an effort to dispose of those on hand.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - - - Editor

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We Talk Too Much.

Silent men are frequently given credit for wisdom which they do not possess. Garrulous individuals very frequently disclose more ignorance than wisdom. The happy medium, if there is one, rarely finds an appreciative audience.

There are times when most of us realize that we have talked too much.

Dr. Goitsome proudly confided to the very agreeable gentleman caller that he was doing the largest business in town, that he had cashed in \$10,000 last year, and that he was doing better this year, and when the very agreeable caller presented him with a blank for a statement of his income and reminded him that he had failed to pay the federal income tax last year, then Dr. Goitsome realized that he had talked too much.

Dr. Gettamany, in all confidence of course, told the very affable, soldierly-looking young doctor, who was "just looking around," that he had attended twenty obstetrical cases last month, and when the affable young doctor informed him that he was from the State Board of Health and that he had better get busy and make up about nineteen more birth reports, then Dr. Gettamany realized that he had talked too much.

The Chicago exponent of practical euthanasia hoped to gain the applause of the world by a public demonstration of one of the means of race improvement, and when the newspapers have tired of featuring him, the fanatics exhausted their vocabularies in lambasting him, and the doctors are through ridiculing him, he will begin to realize that he has talked too much.

As a rule men talk too much about themselves and women talk too much about other women. Doctors may do neither with credit or safety to themselves.

If one satisfies the inquisitiveness of the friends of his patients by retailing their afflictions or the nature of their operations he erects a barrier against further consultations by these patients or their friends. Most people resent even such limited publicity. They insist upon copy-right privileges in stories of their own misfortunes and preserve them for the delectation of their intimates.

When Mrs. Stroph-Anthus is informed, in the strictest confidence, by the popular Dr. Hightone that Mrs. Piper-Azine has the lumbago, she is fully convinced that, in like manner, Mrs. Piper-Azine may learn of her sore leg, and the sore leg is carried to some less popular and more discreet medico, who is able to resist the wily inquisitiveness of her feminine compatriots.

If medical subjects constitute the burden of one's conversation with his friends and patients he is likely to find himself quoted as authority for many absurd and ridiculous theories of diseases and their origin.

If one talks much about politics or religion he is, at times, certain to stir up antagonisms that may ignore his accomplishments in medicine, for there are still people in the world who judge the character of a man, and determine their relations with him, by his political affiliations or his religious beliefs.

If one must talk, let him talk about history, or literature, or art. If one's ignorance upon these subjects is detected, if not too crass, he will be excused on the

ground that he is so completely engrossed with his professional studies. If his ignorance is not detected he will be credited as having a wonderful intellect, great broadness of mind, and a comprehensive knowledge of everything. Being a great student, as shown by his knowledge of these things, it will follow, in the minds of his friends, that his knowledge of medicine must therefore be very profound.

—R—

A bill has been prepared and will be introduced at the coming session of the State Legislature of New York, which is designed to establish in that state a system of health insurance. The bill provides that the expense of such health insurance shall be borne by the worker, the employer and the state. It is intended to provide every insured worker with medical care, nursing attendance, hospital care, medical and surgical supplies, and a cash benefit equal to two-thirds of the wage for a maximum of twenty-six weeks. It also provides for special care for the wife during childbirth, medical care for the whole family, and a funeral benefit on the death of the wage earner.

It is proposed by the bill that the privilege it confers may be available to all those engaged in manual labor and to all others earning less than \$100 a month.

—R—

Dr. T. Wood Clarke (N. Y. State Journal) reports thirty cases of pneumonia in children treated with hexamethyleneamine. He gave two grains every two hours and very soon after the first dose the symptoms improved. He says that, with one exception, in every case in which he has used this treatment, "the temperature has begun to drop within a few hours of the starting of the drug, and from twenty-four to forty-eight hours the patient has been well."

—R—

Dr. Joseph L. Porter of Paola died recently and left property between \$50,000 and \$60,000, with the following bequests: One brother and two sisters to receive \$5,000 each; two churches to receive \$500

each, seven churches to receive \$1,000; and the remainder of the estate to go to the school of medicine of the University of Kansas. The income only from this bequest is to be used to found a scholarship, the remainder to be used in the way deemed most advisable by the dean.

—R—

The Defense Board has had very few cases for defense this year, but the Medical Protective Co. has something like twenty-five cases in the state. Not more than one per cent of the damage suits against medical men have any foundation in fact, but arise from some careless remark made by some physician not directly interested in the case.

—R—

According to the report of Bruno Feller (Medizinische Klinik) a high caloric diet in typhoid fever reduced the mortality from about twenty to seven per cent. The use of vaccines of sensitized typhoid bacilli did not further reduce the mortality, but reduced the duration of the disease. There were also fewer complications among the vaccinated, fewer relapses, and less tendency to lose weight.

—R—

The new dispensary and laboratory building which was erected at Rosedale last spring was opened to patients on November 22. This building consists of two stories and a basement, 46 x 86 outside dimensions, and is of fireproof construction. It contains drug rooms, laboratories, examining rooms, and general clinic rooms, and is the only building of its kind in greater Kansas City.

—R—

Coincidences are sometimes mistaken for correlated facts and it is too frequently the case that our ideas of the therapeutic effects of drugs are based upon misinterpretation of coincidences. This is especially true in those diseases where symptoms are likely to appear and disappear rapidly.

Two new societies have been organized in the Fourth District during the past few months. One in Dickinson County and one in Morris County. The Morris County Society was organized on the twenty-second of November and promises to become a live one.

—R—

In an advertisement of a certain movie actress the statement appears that at the age of seven years during a bungling operation for the removal of her tonsils her vocal cords were severed. The surgeon who did that operation was certainly some digger.

—R—

Max Kahn and Morris H. Kahn (Medical Record) suggest that acidosis in diabetes may be prevented by the administration of lime salts. This is based on the showing that diabetes is characterized throughout its course by calcium loss.

—R—

We are so prone to theorize and so satisfied with the theories evolved that we hesitate to accept facts which disprove our theories even though such facts may have been definitely proven.

—R—

Dr. L. P. VanDuzer, organizer for the A. M. A., will spend several months in Kansas, soliciting new members for the State Society and incidentally taking applications for fellowships in the A. M. A.

—R—

Dr. W. H. Bogle of Atchison died November 30 at the age of 57. Dr. Bogle was formerly Division Surgeon for the Missouri Pacific R. R. and was for many years a prominent physician in Atchison.

—R—

The editor of the Journal requests that the secretaries of county societies send in the lists of officers elected at the annual meetings so that the roster may be corrected accordingly.

—R—

Public Meetings.

Many of the societies holding public meetings during the past year have reported good attendance and a general

manifestation of interest in the educational work of the organization. It is hoped that every county society will hold at least one public meeting during the coming year.

The Committee on Health and Public Instruction has arranged to furnish speakers for societies that desire them. Secretaries who wish to arrange for one of these speakers should write to Dr. C. C. Nesselrode, Chairman of the Committee on Health and Public Instruction, Kansas City, Kansas.

The list of speakers and the subjects of their addresses is hereto appended. Other names and other subjects will be added at a later date.

The Development of the Nervous System in Children—Dr. O. D. Walker, Salina, Kansas.

Relation of Mental Instability Toward Society—Dr. C. C. Goddard, Leavenworth, Kansas.

Submarines in Medicine—Dr. Marion Truehart, Sterling, Kansas.

Hidden Dangers—Dr. J. E. Sawtell, Kansas City, Kansas.

Eugenics—Dr. J. A. Dillon, Larned, Kansas.

Oral Hygiene and Prophylaxis—Dr. Dillon, Larned, Kansas.

Kansas and the Tuberculosis Problem—Dr. C. S. Kenney, R. F. D. 1, Norton, Kansas.

Prevention and Treatment of Tuberculosis—Dr. W. E. Currie, Sterling, Kansas.

Causes and Effects of Faulty Breathing—Dr. J. R. Scott, Newton, Kansas.

Causes and Treatment of Cancer—Dr. O. D. Walker, Salina, Kansas.

The Typhoid Fly—Dr. S. J. Crumbine, Topeka, Kansas.

Preventable Blindness—Dr. J. W. May, Kansas City, Kansas.

Rural Sanitation—Dr. G. G. Sippy, Topeka, Kansas.

Factors Other Than Medical in the Causation of Death—Mr. W. J. V. Deacon, Topeka, Kansas.

Food Adulteration—Mr. Leon Congdon, Topeka, Kansas.

Child Hygiene—Dr. Lydia Allen DeVilbis, Topeka, Kansas.

What Preventive Medicine Has Done for Civilization—Dr. Marion T. Sudler, Rose-dale, Kansas.

Cancer: What It Is and What We Know About It—Dr. Marion T. Sudler, Rose-dale, Kansas.

Infections—Dr. Emma L. Hill, Oswego, Kansas.

The Cancer Problem—Dr. C. C. Nesselrode, Kansas City, Kansas.

—R—

Resolution Adopted by The American Medical Editors' Association.

Whereas, The American Medical Editors' Association believe that the principle of the freedom of the press bears unusual force in relation to the medical press, discussing subjects germane to medical progress, and

Whereas, the Southern California Practitioner has been indicted by the United States Postal Department because of the publication of an article dealing with the "sex question" which appeared in the issue of March, 1914.

Be It Resolved that the American Medical Editors' Association express to Dr. George E. Malsbary, editor of the Southern California Practitioner, its confidence and moral support in the pending action.

Be It Resolved that the American Medical Editors' Association assure Dr. Malsbary of its willingness and readiness to afford him any assistance and support within its power according to the Constitution and By-Laws.

IRA S. WILE,
C. W. FASSETT,
HENRY R. HARROWER,
Committee.

October 19, 1915.

—R—

SOCIETY NOTES.

DOUGLAS COUNTY MEDICAL SOCIETY.

The Douglas County Medical Society met at the Y. M. C. A. Building in Lawrence on November the ninth. The following resolutions were adopted:

Whereas, there has been some misconception as to the attitude of the Douglas County Medical Society toward the compulsory medical fee charged the students by the Kansas University; and as there seems to be some effort made to have it appear that this Society endorses the plan, and furthermore, as our respect for the profession of the state who have children and friends here requires us to announce our position.

Be it therefore resolved: That we present these self-evident truths and reasons for our inability to endorse the university plan, in order that our friends may recognize the ethical principles involved and judge for themselves.

First: The student body is made up of the best families of this and adjoining states who neither of themselves nor through their children of the student body, have (ever) asked for any such privilege (?) as is being forced upon them. It is not at all surprising then, that these young women and young men resent being treated either as millworkers who have signed away their rights; convicts who have no rights, or paupers who, as wards of the state, may with impunity be subjected to exploitation for the benefit of those who happen to be in control, but quite as reasonably these young people insist on their right, privilege and ability to choose for themselves and question the university authorities' right to choose a physician or surgeon for them or in any way to coerce them in their entire freedom of choice.

Secondly: It is not entirely clear that the student body was ever intended to be the real beneficiary of the scheme, and it is equally doubtful if the university has any legal or moral right to exploit the student body, either for the purpose of clinical material or personal gain to the individuals directly or indirectly connected therewith whose principal asset is an entire willingness to bow to any one who may be in temporary authority in the medical school. Again, while the health of the students is to be looked after by a board of teachers, who in their particular

lines may be scientific men, it does not appear that they have ever been in the practice of medicine or even care to be; their line of work entirely unfitting them for the practical care of the sick or injured.

While the Society has been led to believe that the major part of the activity of the University Association would consist of efforts to conserve the student health by discovering early signs of disease through routine examinations and laboratory tests (all of which is very commendable but should be done without fee), we regret that our experience has not as yet justified the hope that this plan would be carried out; few cases coming into our hands who have had a thorough examination or reaped any real value from the scheme.

We also regret to say that, so far as we have had opportunity to judge, the scheme is not characterized by as frank and open an attitude as might be desired, but violates the promises made to this Society by the University authorities that what is being attempted would not be done, and in a covert way seeks to gain absolute medical control of the entire student body for purposes that have no necessary relation to the student health.

We are willing to concede that the medical department and the hospital which as yet have to justify their existence, need the clinical material, but we believe that a little attention to real efficiency and a little less effort to secure absolute control would render such autocratic power unnecessary and even undesirable.

To be sure, not all of the members of the student body are, or could be used as clinical material; some of them come into the hands of private interests, but where this has been with the consent of the university authorities it is to be feared that the chief merit has not been that of efficiency but rather an unquestioning and little short of servile worship of the distributing agency.

In a broad sense the plan of charging a definite fee of \$2.00 and promising un-

limited service establishes right here in the midst of the medical school atmosphere with its alleged high standards of medical ethics, the most flagrant and unnecessary form of contract practice; gives the legitimate practitioner his choice between servility or elimination; destroys individualism, fosters a paternalism that is inconsistent with university teaching, sets up a condition of unfair competition to which all teachers of medicine are opposed; seeks to establish a state of local medical affairs that any teacher of medical ethics shuns; and finally, forces upon the student body a service from which efficiency is eliminated and being neither effective nor dependable, is condemned most of all by the students themselves.

The above resolutions were adopted by the Douglas County Medical Society in regular session, November 9th, 1915.

G. A. HAMMAN, Pres.

E. J. BLAIR, Sec'y.

NORRIS COUNTY SOCIETY.

The organization of the Morris County Medical Society was completed at a meeting held in Council Grove, Monday evening, November 22. Dr. O. P. Davis, Councillor for the Fourth District, was on hand and officiated in the proceedings. The following is the list of members submitted: Drs. Craig, Hutchinson, Harvey, B. E. Miller, W. H. H. Smith, C. C. Uhls, H. Randles, J. A. Woodmansee, C. A. Yearout, Albert Beam, G. E. Brethour, A. J. Lewis.

Nearly all of these members were present. There were also delegations from the Lyon County and the Shawnee County societies present to extend the hand of fellowship and best wishes for the prosperity of the new society.

In as much as a preliminary meeting and a temporary organization had been had it was moved by the society that the temporary organization be made permanent and the officers so elected were: Dr. McCullough of Wilsey, president; Dr. W. H. H. Smith, Council Grove, vice-president; Dr. Albert Beam, of Wilsey, secretary.

Drs. Lewis, Miller and Hutchinson were appointed a committee on constitution and by-laws. The following members were elected as a board of censors: Dr. Miller for one year, Dr. Harvey for two years, Dr. Beam for three years.

After the election the members and visiting physicians were invited to the banquet table. The next meeting will be held on January 13.

KINGMAN COUNTY SOCIETY.

The Kingman County Medical Society met in Kingman on Monday evening, November 15. The following members were present: Drs. Light, Davis, Callahan, Wehinger, Longenecker, of Kingman, and Dr. C. E. Phillips, of Zenda. Dr. R. L. Futrell of Spivey and Drs. D. B. Buhler and R. W. Springer of Pretty Prairie were also present.

Dr. Buhler read a paper on appendicitis which was generally discussed by those present. Dr. C. W. Longenecker of Kingman was elected secretary to fill the vacancy caused by the injury of Dr. J. M. McKamey. Dr. McKamey's automobile ran into a railway engine on September 11 and he was seriously injured. He is now in St. Mary's Hospital at Kansas City and at this date his condition is reported as serious.

The society voted to meet every two weeks on Monday evening. Dr. Futrell, recently from Texas, has purchased the practice of Dr. A. M. Dick of Spivey.

C. W. LONGENECKER, M.D.,
Secretary.

REPUBLIC COUNTY SOCIETY.

The annual meeting of the Republic County Medical Society was held in the offices of Drs. Kamp and Thomas in Belleville on Thursday, November 11. The following officers were elected for the year 1916: Dr. C. V. Haggman, Scandia, president; Dr. J. B. Henry, Scandia, vice-president; Dr. H. D. Thomas, Belleville, secretary-treasurer.

The following papers were read:

Exophthalmic Goitre with Report of Cases

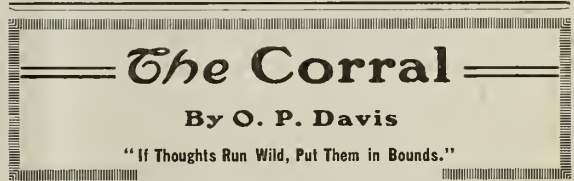
by Dr. J. C. Decker, Belleville.

Chronic Interstitial Nephritis in Children with Report of a Case by Dr. Wm. Kamp, Belleville.

Report of an Atypical Case by Dr. C. V. Haggman, Scandia.

This was one of the best meetings the society has had for some time. Dr. M. D. McComas of Courtland and Hinkle of Republic City were admitted to membership. The next meeting will be held in Scandia the first of the year.

H. D. THOMAS, M.D., Secretary.



DIPLOMAS, DEGREES AND TITLES.

I have received a prospectus of the Philadelphia Post-Graduate Institute, a very unique establishment, presided over by J. D. Albright, M.D. This institution proposes to send any member, as soon as his name can be engrossed thereon, a certificate "artistically executed on heavy Japanese vellum," his name and whatever else he may wish suitably inscribed in colors. Its size is nineteen by twenty-four inches, and judging by the sample submitted, the document will easily outshine and discredit, so far as appearance goes, the very commonplace diploma anyone may happen to have received from other source. To make it easier for the member to get himself properly designated on this impressive parchment, a list of some fifty-one titles is submitted, from which he may choose the one that sounds best and looks best in his own estimation. Some of those suggested are: Nerve Specialist; Master Rectal Specialist; Master Pelvic Specialist; Specialist in Chronic Diseases; Specialist in Spinal Adjustments; Expert Chiropractor; Osteopathic Specialist; Food Expert; Hygienic Adviser; Foot Specialist; Expert Chiropodist. There are many more of the same sort, and I shall not tire you with their further enumeration. But rest assured, gentle reader, there is

one there suited to your most pretentious fancy. And if you should happen to be over-fastidious as to the appropriate title, other than your regularly conferred degrees, you are assured of the willing and versatile suggestions of the Advisory Council along this line.

* * *

Doubtless you wish to know how you may become a member of this very serviceable organization and what you get, after you join, besides the diploma. Well, you must be of good moral character, of course. Any applicant will be willing to confess to having that. Further, you must be devoting all or part of your time and talent to the study or practice of some branch of the healing arts and sciences, or engaged in some allied calling. "The possession of a regularly conferred degree of any kind is not essential to membership." No one need be deprived of the benefits and privileges of this institute, if only he will send in the life membership fee, which is twenty-five real dollars.

* * *

After you are in, you get, in addition to the stunning vellum diploma, with blue ribbons on it, and your name and attributes in red, the privilege of asking the Advisory Council any questions upon any subject about which information is desired. If you are dissatisfied with the answers you have been getting from the Ladies' Home Journal or the Chaperone Department of the Kansas City Star, you may, if a member, get answers piping hot right from the authoritative sources and very fountain heads of information from which there will be no need of appeal.

* * *

And there is no reason, so far as I can see, why these members should not be allowed to write certain symbolic letters after their names, as has become the fashion these days. For instance, Doctor Adam Sharpe Carver might write some such mystic formula as F.P.P.-G.I. after his cognomen with its usual suffixes, the meaning being "Fellow of the Philadelphia Post-Graduate Institute." This would mean

about as much and have about as much weight as a certain other recently acquired fellowship which Carver obtained at the hands of a mutual admiration society of which he is a charter member.

* * *

What a fine thing it is to have a lot of diplomas and certificates on the office wall! How impressive! How it reassures one's timorous patrons of the efficacy of the measures and the authoritative quality of the pronouncements for which they are waiting! No matter where the documents are from, if only they have the semblance of scholastic origin, with seal and ribbon attached. The American people fall for anything of the kind with alacrity. No need of reading it, if only it be a "diploma."

* * *

Diplomas used to mean something before they became so common and so easily obtained. There was some justification for framing and hanging up for public inspection a document proclaiming that following upon four years of laborious and studious application in the halls of a respectable institution of learning the person named thereon was entitled to be known to those whom it might concern, as a bachelor of arts, and to so subscribe himself, should occasion warrant. To display such an honorable testimonial was in unquestionably good taste, much the same as was the display, in other days, of the wedding certificate in the marital boudoir. And indeed, the possession and display of such a diploma remain in good taste, I think I may say, even at this late day, as also, perhaps, the somewhat similar parchment proclaiming that you have earned, after a term of years at hard labor in an institution acceptable to the Carnegie Foundation, the right to be called a Doctor of Medicine. But with these two exceptions, about every other kind of diploma and degree can be bought at a low price, or even obtained without the asking if the recipient only has "influence" or has a pull on the right end of some wire.

The old baccalaureate degree still comes hard, and therefore means more than perhaps any other kind. The doctorate degree in medicine also requires considerable sweating and has a consequent significance. A master's degree used to be obtainable only as a sequel to the baccalaureate and at the end of a prescribed course of study in college extending over a period of a year or more. But now, strangely enough, anybody, without even a visit to a college, may get adorned with this degree by the judicious expenditure of a little money, either paid right over the counter for the article, or donated to the endowment fund to the same, though surreptitious, end. I personally know men who boldly proclaim themselves masters of arts who were at an expense for the privilege in a sum not exceeding twenty-five dollars. Let the man who has an earned baccalaureate be content with that ancient degree.

* * *

The title "doctor" is of ancient origin, and its original significance was very honorable. As is well known, the appellation meant a learned man, and the scholastic doctorate degree was only conferred in course, following upon the baccalaureate or other academic degrees. It was conferred after post-graduate terms of study in philosophy as Ph.D.; in natural science, as Sc.D.; in literature, as Litt.D.; and in medicine, as M.D. The possession of this title and degree, laboriously obtained from an honorable and respectable school, constituted a very proud and enviable distinction. But what about its possession now? Anybody can be a "doctor" now. No baccalaureate is at all pre-requisite. Like the prefix, "colonel," that of "doctor" will attach without conscious effort to one's name, and its significance necessarily requires, for the inquisitive, an explanatory clause. Occasionally one needs to know whether the person to be thus addressed is a "doctor" of divinity, of laws, of philosophy, of odontology, of chiropody, of chiropractic, of osteopathy, of veterinary science, of optometry, or optics, of

Christian science, or whether he is merely a "doctor" of physic, commonly known as "Doc." Usually, this last mentioned species can be identified by certain attendant phenomena and a general medicated air and aura clinging to him. The term "doctor" as applied to him, whether used as a verb or substantive, is understood in quite another sense than that of its original and etymological derivation. True, the doctor of medicine may also be a learned man, and indeed often is; but these scholastic attainments are incidental and outside the question. He is a "doctor" because he "doctors" people. And to save time and lessen strain on the organs of expression, he is referred to as "Doc," if not openly, at least covertly.

* * *

The different kinds of "doctors" are fast multiplying. I have mentioned many varieties essaying to minister to the infirmities of man and beast. And new pretexts for manufacturing new degrees along this line are constantly being found. Within very recent years one or two distinguished schools, and several smaller ones, aping them, have invented a new doctorate degree, viz., D. P. H. — Doctor of Public Health. As though the arduous course of study and training exacted of all candidates for the ancient medical degree were not enough to render them competent to give saultary civic counsel along lines of sanitation and prophylaxis, a special course has been devised, made up of nothing new, but baited, nevertheless, by a degree and diploma at the end of it, so that the recipients may wear something at the tail of their names that ordinary plug doctors cannot boast. I, for one, haven't yet been able to see why our medical sanitarians should need a special degree any more than our oculists, neurologists or other practitioners in special lines. If we must have "Doctors of Public Health," by all means let us also have "Doctors of Baby Hygiene," "Doctors of Eugenics" and "Doctors of Marital Felicity." All this flub-dubbery and flap-doodle of prefix and suffix is an atavistic rever-

sion to the lust for the symbols and insignia of social caste, such as crests, coats-of-arms and titles of preferment, all of which are obsolete, unamerican and unworthy of a high-minded profession.

* * *

Along this line I must make brief mention of certain other tokens of alleged medical excellence and tacitly implied superiority recently assumed by a considerable group of surgeons, or rather, conferred upon themselves by themselves. I refer to the American College of Surgeons and the impressive "F.A.C.S." with which the members of this organization modestly adorn their names. This close corporation is presumably modeled after the British Royal College of Surgeons, whose members sign themselves "F.R.C.S." So the innovation is quite English, don'tcheknow? But that would be enough reason why some of us should be against it. We need no such exclusive, factional and undemocratic groupings of our medical and surgical men in this country. Let our professional organizations be of a kind that shall invite and encourage the fellowship of all physicians who are honestly engaged in the Great Vocation, however humbly, however obscurely, however remotely. And let the cement of fraternity unite all "into one sacred band or society of friends and brothers, among whom no contention should ever exist but that noble contention, or rather emulation, of who best can work or best agree."

BOOKS.

Diseases of the Skin and the Eruptive Fevers.

Third Edition. Thoroughly Revised.

By Jay Frank Schamberg, M.D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Third edition, revised. Octavo of 585 pages, 248 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$3.00 net.

This is the third edition of this book and shows several very important additions to the former edition. Among the more important additions is a chapter on the value and interpretation of the Luetin Test in Syphilis. The chapter on the treatment of syphilis has been rewritten

so as to conform to modern methods of treatment. A chapter on Rocky Mountain Spotted Fever has also been added.

All of the subjects treated in this book are well illustrated, a very essential feature in any work on diseases of the skin. There are larger and more exhaustive works than this one, but there are few that are more practically serviceable.

Principles and Practices of Obstetrics.

New (Second) Edition, Thoroughly Revised.

By Joseph B. De Lee, A.M., M.D., Professor of Obstetrics at the Northwestern University Medical School. Second edition, thoroughly revised. Large octavo of 1087 pages, with 938 illustration, 175 of them in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$8.00 net; half morocco, \$9.50 net.

Although only two years have elapsed since the first edition of this work was issued, the second edition is now on the market. When second editions follow so closely upon the first it is not customary to revise them, but in this instance a complete revision was made so that the work is in every feature strictly up to date.

Additional material on the Abderhalden pregnancy reaction, on "twilight sleep," on "dry labor," labor in old primiparæ, blood-pressure, and extraperitoneal cæsarean section has been added.

The work is excellently and profusely illustrated.

A Text-Book of Pathology.

Sixth Edition, Reset.

By Alfred Stengel, M.D., Professor of Medicine, University of Pennsylvania, and Herbert Fox, M.D., Director of the Pepper Laboratory of Clinical Medicine, University of Pennsylvania. Sixth edition, reset. Octavo of 1045 pages, with 468 text-illustrations, many in colors, and 15 colored plates. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$6.00 net; half morocco, \$7.50 net.

This new edition of Stengel will be welcomed. In this, the sixth edition, the name of Dr. Herbert Fox appears as a collaborator and he has contributed largely to its contents.

The book has been very thoroughly revised. Many chapters have been added, many have been rewritten and some have been condensed or eliminated. Considerable more space has been devoted to diseases of the ductless glands. A chapter has been added on Teratology. A new sec-

tion on Transmissible Diseases has been added. The part of the work devoted to general pathology has been mostly rewritten. The book has been brought up to date in every essential feature.

What to Eat and Why.

Second Edition.

By G. Carroll Smith, M.D., of Boston, Mass. Second edition, thoroughly revised. Octavo of 377 pages. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$2.50 net.

In his preface to the first edition of this book the author says: "The desire of the author is to place before the medical student, and particularly the active, busy practitioner, a book describing the fundamental elements of food and the principles underlying its use, the essential reasons why a change of the diet in certain diseases is desirable, and how the change may be made in the most practical, time-saving way, that there may no longer be an excuse, except in rare instances, for the country physician sending his patient to the city specialist to be dieted after an accurate diagnosis has been made."

The purpose as announced by the author is very nicely carried out in this second edition of his book. Facts are very simply and clearly stated. The most modern methods of feeding in various diseases are described. The reader will fully appreciate the rules which have been carefully worked out for his guidance.

The Clinics of John B. Murphy at Mercy Hospital, Chicago.

Vol. IV, Number 5, October, 1915. Published bi-monthly by W. B. Saunders Company, Philadelphia and London. Price per year, \$8.00.

This number of *The Clinics* is fully up to the standard of excellence set by the last number. The first two clinics present cases of carcinoma of the gum and of the tongue with operations on the same. There follows a series of clinics on fractures of the arm, ancient or ununited fractures, with operations for correction of deformities. One of the very interesting papers in this number is a report, by Dr. William B. Coley of New York, of a case of "Inoperable Recurrent Carcinoma of Nasopharynx Involving Both Superior

Maxilla, Ethmoid, Frontal and Malar Bones," which was treated with injections of mixed toxins with disappearance of the neoplasm after five weeks treatment.

As usual the reports are well illustrated and carefully presented.

The Practical Medicine Series.

Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Published by The Year Book Publishers, 327 So. La Salle St., Chicago. Price of the series of ten volumes, \$10.00.

Vol. VI, General Medicine—Edited by Frank Billings, M.S., M.D., head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A.M., M.D., Professor of Medicine, Illinois Post-Graduate Medical School. Price, 1.50. Vol. VII, Obstetrics—Edited by Joseph B. De Lee, A.M., M.D., Professor of Obstetrics, Northwestern University Medical School, with the collaboration of Herbert M. Stowe, M.D. Price, \$1.35.

Each of these volumes is complete on the subject of which it treats for the year prior to its publication.

Diseases of the Nose and Throat.

By Algernon Coolidge, M.D., Professor of Laryngology in the Harvard Medical School. 12-mo of 360 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$1.50 net.

This is a manual of 350 pages in which the author has tried to present all the information ordinarily required by the student and general practitioner. As long as the general practitioner finds it necessary to care for diseases of the nose and throat these little texts will continue to be popular. It is utterly impossible for any man to acquire a complete knowledge of all the branches of medicine, yet few find it convenient or possible to limit their work to those fields in which they are best qualified by knowledge and experience. To the average man the nose and throat constitute a field which, it seems, may be invaded with the least danger to life and consequently with the least knowledge, and these packages of condensed in-

formation, prepared by men of such prominence as Dr. Coolidge, tend to increase the confidence with which the upper respiratory tract is recklessly invaded.

—R—

Battle Creek Sanitarium Golden Jubilee.

The Sanitarium idea in this country is approaching its fiftieth anniversary. The Battle Creek Sanitarium, the first institution of its kind in the United States, will celebrate its Golden Jubilee next year.

The origin of the Sanitarium dates back to 1866 when it is related a little band of men who believed in altruism and human progress purchased a small two-story farmhouse in a fine grove in the edge of the village of Battle Creek, and opened a "water-cure" under the name of "The Western Health Reform Institute."

Ten years later the enterprise, after having passed through various vicissitudes and having failed to achieve any considerable degree of success, was placed in the hands of the present management, with twelve patients and a half dozen small two-story wooden buildings.

The new management inaugurated new policies, and introduced new methods and principles. The empirical methods of the old-time "water-cure" were replaced by rational hydrotherapy, and as rapidly as possible new methods, appliances, and apparatus were added, in the effort to create an institution which would show in practical operation all the resources of rational and physiologic medicine.

The management of the new institution sought, by the aid of the various means of precision afforded by scientific medicine, to perfect, and thus place upon a scientific basis, those natural curative agencies which, having chiefly originated with the laity, were formerly employed almost exclusively by empirics.

—R—

The Antitoxin Treatment of Diphtheria.

It is a generally recognized fact that antidiphtheric serum has in large measure robbed diphtheria of the dread with which it was formerly regarded. In the twenty years since its introduction into therapeu-

tics it has saved countless lives and given to the medical profession control over a disease in the presence of which the physician had previously been all but helpless. The value of diphtheria antitoxin, both remedial and prophylactic, rests upon so sure a basis that it requires no word of commendation. In the language of an eminent American pediatricist, "no table of figures is so convincing to an individual as personal experience, and by this argument one by one the opponents of antitoxin have been converted."

What make of diphtheria antitoxin to employ is a question which, sooner or later, confronts every physician. It is a question that should not be answered "off-hand." On the contrary, it merits the most thoughtful consideration. Obviously, all antidiphtheric sera are not of equal merit. The antitoxin selected should be a product of established purity and potency—a product, moreover, that is backed by experience, scientific knowledge and adequate manufacturing equipment. Perhaps the name which comes most promptly to mind in this connection is that of Parke, Davis & Co., among the earliest and now the largest producers of diphtheria antitoxin. That this concern regards the business of serum production as one not only worthy of the highest skill and endeavor, but actually demanding it, is evident from this excerpt from a current announcement:

"When (in 1894) we undertook the manufacture of diphtheria antitoxin, we had one dominant ambition: to produce an antitoxin that should leave nothing to be desired—an antitoxin that the physician might administer at a critical moment with assurance that it would not fail him. In all the years that have since elapsed we have never once lost sight of that ideal. Diphtheria antitoxin that is carefully, scientifically, conscientiously made, demands a large expenditure of time and money. The cost is amply justified. The value of a human life cannot be measured in dollars and cents. We produce the best possible antitoxin, and we spare no expense in doing it."

INDEX TO VOLUME XV.

ORIGINAL ARTICLES.

Are Simple Cataracts Caused by Pyogenic Infection? T. L. Higginbotham, M.D., 8.
 A Few Remarks on Retrodisplacements of Uterus; Lloyd Clary, M.D., 71.
 Appendicitis in Children—A Surgical Problem; E. D. Ebright, M.D., 74.
 A Remarkable Case of Tubal Pregnancy; Lloyd A. Clary M.D., 149.
 A Case of Apoplexy; W. S. Lindsay, M.D., 249.
 Acute Intestinal Obstruction; Hugh L. Charles, M. D., 281.
 Appendicitis Complicating Pregnancy, Labor, and Puerperium; A. J. Weaver, M.D., 365.
 Bilateral Ovarian Sarcoma in a Child Five Years Old with a Large Retroperitoneal Metastasis; Hugh Wilkinson, M.D., 373.
 Epidemic Influenza in Children with Special Reference to Gastro-Intestinal Complications; F. H. Smith, M.D., 344.
 Gleanings from Principal European Eye and Ear Clinics; H. C. Markham, M.D., 43.
 Hookworm Disease; L. Emmet Mock, M.D., 105.
 Medical Ethics; Henry Plumb, M.D., 306.
 Nitrous Oxide-Oxygen Anæsthesia; George C. Mosher, M.D., 375.
 Notes from the Medical School, 118, 152, 177, 314, 344.
 President's Address; W. F. Sawhill, M.D., 139.
 Progress in Infant Feeding; Chas. Stein, M.D., 294.
 Recurrence of Cancer After Operation; J. C. McClintock, M.D., 206.
 Splenectomy with Report of a Case; Paul Christmann, M.D., 77.
 Surgery of Gall Bladder and Ducts; R. G. Dugan, M.D., 111.
 Shock, Its Nature and Prevention; Geo. E. Coghill, Ph.D., 247.
 Some Practical Economic Features Facing the Medical Man; W. G. Norman, M.D., 339.
 Some Practical Points Regarding the Wassermann Test for Syphilis; Charles F. Craig, M.D., 359.
 Torsion of the Pedicle of an Ovarian Cyst Simulating Ruptured Extra-Uterine Pregnancy; E. M. Miers, M.D., 373.
 The Care of the Babies' Eyes; John H. Johnson, M.D.; 1.
 The Mutilation of the Tonsil; J. M. Robinson, M.D., 10.
 The Surgical Treatment of Intestinal Stasis Due to Cecum Mobile and Coloptosis; Geo. M. Gray, M.D., 37.
 The Microscope as an Essential in the Diagnosis, Prognosis and Treatment of Gonorrhea; P. S. Mitchell, M.D., 48.
 The Doctor's Business Methods; Max Miller, M.D., 81.
 The Social End of a Clinical Tour in Europe; P. S. Mitchell, M.D., 113.
 The Mechanism of Pelvic Support; Frances A. Harper, M.D., 171.
 The Cancer Question; C. C. Nesselrode, M.D., 203.
 The Present Status of Cancer Research; Leo Loeb, M.D., 207.
 The Prevalence of Cancer; Samuel G. Dixon, M.D., 210.
 The Early Diagnosis of Cancer; Wm. L. Rodman, M.D., 214.
 The Medical School and the State; John Sundwall, M.D., 235.
 The Diagnosis of Gastric Ulcer by the Roentgen Ray; R. D. Carman, M.D., 267.
 The Surgical Treatment of Chronic Ulcer of the Stomach; E. H. Beckman, M.D., 272.

The Treatment of Syphilogenous Diseases of the Nervous System with Salvarsanized Serum; Philip B. Matz, M.D., 276.
 The Factor of Age in the Incidence and Death of Typhoid Fever; W. J. V. Deacon, 299.
 The Correlation of Clinical and Serological Findings in Paresis and Cerebrospinal Syphilis; Ira A. Darling, M.D., and Philip B. Newcomb, M.D., 303.
 The Early Diagnosis of Ruptured and Unruptured Ectopic Pregnancies; W. A. Newman Dorland, M.D., 329.
 The Toxemia of Pregnancy with Report of Two Recent Cases; E. A. Reeves, M.D., 335.
 The Kansas Doctor's Dream; Walter Graves, M.D., 66.
 Vaccine Therapy; H. M. Conner, M.D., 144.
 Would the Medical Profession Suicide? T. A. Stevens, M.D., 79.

EDITORIAL.

A Case of Hemorrhoids, 59.
 Anti-Fee Splitting Bill Passed, 87.
 Alum in Baking Powders, 181.
 American Proctological Society, 254.
 An Apology? 321.
 A Fair Deal, 348.
 American First Aid Conference, 351.
 Committees Appointed, 227.
 Dr. Prather Married, 156.
 Dr. Peters Dead, 254.
 "Doctors Versus Folks," 288.
 Disease Carriers, 320.
 Editorial Notes, 15, 88, 126, 156, 228, 253, 291, 322, 349, 377.
 Effects of the Anti-Narcotic Law, 85.
 Efficiency or Politics, 86.
 Epidemic Jaundice, 121.
 Free Examination Day, 347.
 Forty-Eighth Annual Meeting, 121.
 How the Anti-Narcotic Law Affects Physicians, 87.
 Let's Pull Together, 155.
 Medicine as a Business, 84.
 Medical Education in Kansas, 252.
 Medical Association of the Southwest, 291.
 Notice, 121.
 New Jersey Comes In, 321.
 Our State Bacteriologist, 17.
 On Fee-Splitting, 55.
 Osteopaths and Narcotics, 322.
 Proposed Amendment to the Constitution, 57.
 Positive Proof, 349.
 Public Health in Topeka, 228.
 Recalled, 52.
 Some Observations on Intra-Nasal Surgery, 59.
 Summer Session, 186.
 Sickness Insurance, 346.
 The Report of the Commission, 13.
 The Bill, 52.
 The Anti-Narcotic Act, 53.
 The Public Health Service, 54.
 The Defense Work, 86.
 The Governor Eliminated It, 125.
 The Annual Meeting, 154.
 The Narcotic Law, 183.
 The Pineal Body, 320.
 They Don't Agree, 287.
 The Osteopath in Medicine, 347.
 The Consensus of Opinion on Cancer, 227.
 Would Create Sanitary Districts, 16.
 When Is Gonorrhea Cured? 57.
 Wisconsin Eugenic Law, 58.
 Who Pays the Heaviest Toll? 179.
 Whooping Cough, 180.
 We Talk Too Much, 376.

THE CORRAL, 19, 59, 89, 127, 187, 229, 291, 352, 381.

THE FORUM, 23.

THERAPEUTIC NOTES, 35, 69, 104, 137, 169, 101, 232, 264, 298, 326, 355.

NEW AND NON-OFFICIAL REMEDIES, 162, 201, 266, 326, 355.

MISCELLANEOUS.

Artificial Pneumothorax, 164.
 Analgesia and Childbirth, 164.
 Alcohol, 153.
 Auricular Fibrillation, 258.
 Artificial Preventives Not Necessary, 296.
 Articles of Faith Concerning Cancer, 225.
 Allen Treatment of Diabetes, 356.
 Bacteriology of Infections, 32.
 Baldness, 165.
 Common Error in Gall Tract Surgery, 12.
 Chaparro Amagosa in the Treatment of Ambic Dysentery, 51.
 Conference of Charities, 97.
 Chronic Duodenal Ulcer, 159.
 Colloidal Solution in Shock, 261.
 Elimination of Urea, 101.
 Examination for Assistant Surgeon, 162.
 Experiment in Respiration, 260.
 Flatfoot, 261.
 Fleuroscopic Bronchoscopy, 262.
 Feeding of Bile, 263.
 Gastric Cancer, 257.
 Government's Work for Properly Labeled Drugs, 48.
 Hyperthyroidism, 28.
 How Deep Should the Tube in Intra-Tracheal Insufflation Be? 31.
 Hydrocephalus, 102.
 Inguinal Appendix, 101.
 Intestinal Amebiasis, 105.
 Intestinal Obstruction, 262.
 International Conference on Race Betterment, 297.
 Injection Treatment of Hemorrhoids, 297.
 Is Strychnine a Cardiac Tonic? 357.
 Lactic Acid Bacilli Gargle, 30.
 Lymphatic Disease of the Skin, 99.
 Meeting of the Board of Examination and Registration, 134.
 Poisonous Fly Destroyers, 20.
 Philippine Civil Service Examination, 51.
 Proposed Amendment to Constitution, 94.
 Psoriasis, 153.
 Potassium Iodide Elimination, 319.
 Public Meetings, 378.
 Reversal of the Circulation, 167.
 Roentgen-Ray Protection, 260.
 Resolution Adopted by the American Medical Editors' Association, 379.
 Senate Bill No. 150, 60.
 Studies Concerning Diabetes, 30.
 Some Breast-Milk Problems, 34.
 Special Internal Secretion Number, 55.
 Some Suggestions on the Expert Witness Problem, 91.
 Serosalvarsan Treatment of Paresis, 100.
 Splenectomy in Pernicious Anemia, 102.
 Soothing Wine for Children Condemned by U. S., 136.
 Salvarsan Poisoning, 178.
 Sugar as a Hand Cleanser, 259.
 The Adrenals, 27.
 The Proper Dosage of Diphtheria Antitoxin, 27.
 Thrombosis and Embolism, 29.
 The Salicylates in Rheumatism, 33.
 The Distribution of Urea in the Body, 34.
 The Harrison Anti-Narcotic Law, 96.
 Tetanus, 103.

Tuberculin Treatment, 103.

The American Hospital Association, 136.

Tuberculosis "Remedies" that are Worthless, 163.

The Hen as a Possible Typhoid Carrier, 166.

The Treatment of Burns, 178.

The Campaign Against Cancer in New England, 219.

The Organization of National and Local Health Forces in the Campaign Against Cancer, 222.

Thrombosis, 260.

Typhoid Immunization, 262.

Transvaluation, 263.

Trachea Position, 358.

Urea Distribution in Uremia, 33.

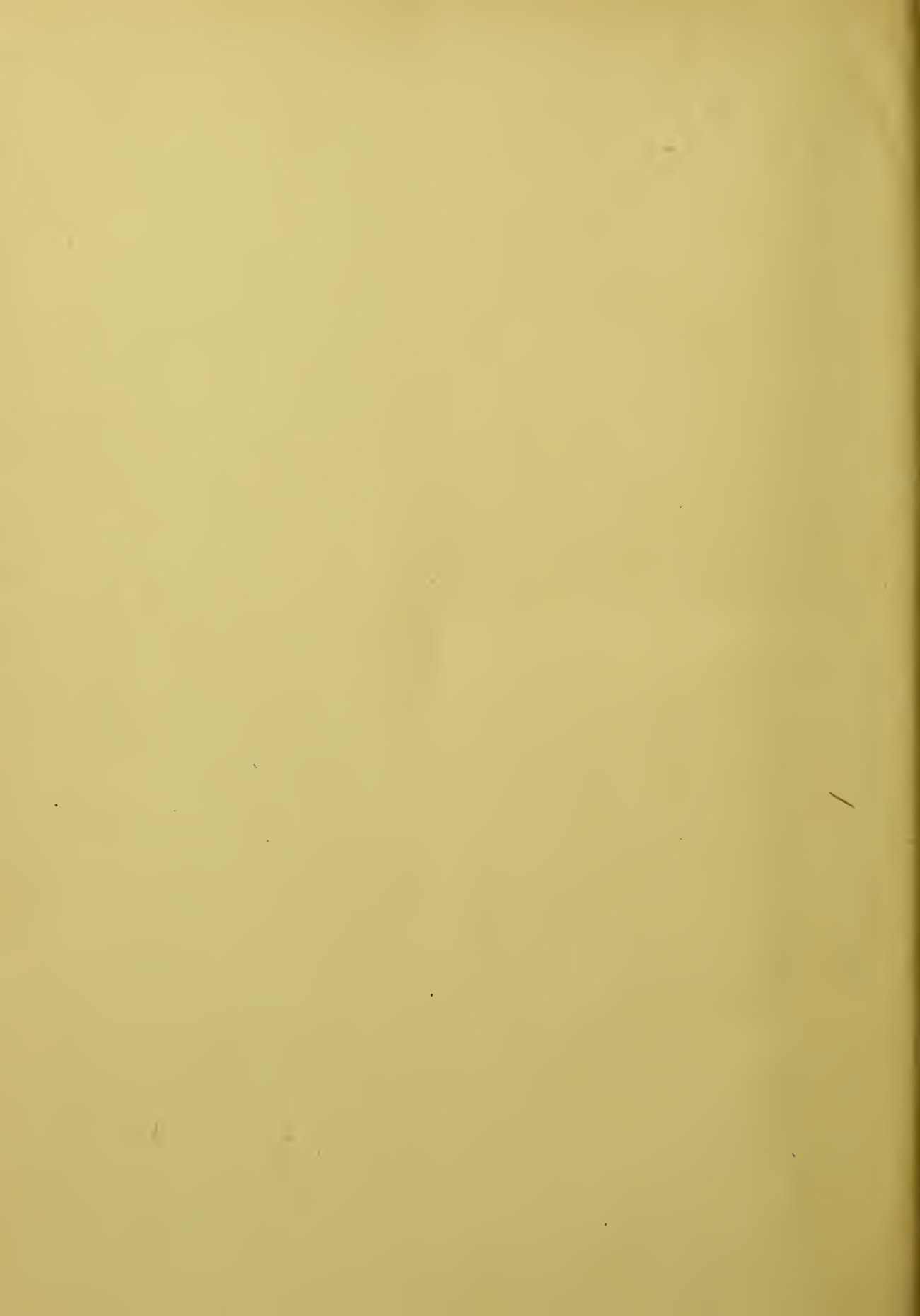
Why We Should Have a War Against Cancer, 220.

SOCIETIES.

Anderson County Society, 64.
 Cloud County Society, 93.
 Council, 63.
 Douglas County Society, 22, 198, 352, 379.
 Golden Belt Society, 64, 133, 323.
 Kingman County Society, 381.
 Labette County Society, 158.
 Leavenworth County Society, 21.
 Marion County Society, 65, 158.
 McPherson County Society, 158, 198.
 Morris County Society, 380.
 Norton-Decatur County Society, 93, 159, 198.
 Northeast Kansas Society, 93, 324, 352.
 Reno County Society, 133, 323.
 Saline and Lincoln County Societies, 324.
 Seventh District Society, 158.
 Shawnee County Society, 22, 64, 132, 226, 323.
 State Society, Program, 132.
 State Society, Proceedings, 190.
 Wilson County Society, 21, 198.
 Wyandotte County Society, 64, 93, 133, 159, 324, 352.

BOOK NOTICES.

Alveolar Pyorrhæa—Bass, 295.
 A Text-Book of Pathology, 384.
 Cancer, Its Cause and Treatment—Bulkley, 95.
 Clinics of John B. Murphy, 199, 256, 325.
 Diagnostic and Therapeutic Technique—Morrow, 159.
 Diseases of Nose and Throat—Braden Kyle, 160.
 Differential Diagnosis, Vol. II—Cabot, 160.
 Diseases of Infants and Children—Ruhrah, 200.
 Diseases of the Nose and Throat, 385.
 Diarrhæal, Inflammatory, Obstructive, and Parasitic Diseases of the Gastro-Intestinal Tract—Gant, 295.
 Diseases of the Skin and Eruptive Fevers, 384.
 Infection, Immunity and Specific Therapy—Koller, 159.
 Medical Electricity and Roentgen Rays and Radium—Tousey, 160.
 Medical Clinics of Chicago, 257, 325.
 Nose, Throat and Ear—Gleason, 94.
 New and Non-Official Remedies (1915), 95.
 Nervous and Mental Diseases—Church, 200.
 Pathological Technique—Mallory, 200.
 Principles of Hygiene—Bergey, 200.
 Practical Medicine Series, 201, 256, 296.
 Prevention and Treatment of Infections—Osborne, 257.
 Principles and Practice of Obstetrics, 384.
 Syphilis as a Modern Problem—Pusey, 325.
 The Treatment of Fractures—Scudder, 295.
 The Clinics of John B. Murphy, 385.
 What to Eat and Why, 385.



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